1.3.4 PM-10 MODELING

The Nonpareil PM-10 sources were modeled for the annual and 24-hour averaging times. An IDEQ-recommended buffer was added to background concentrations to account for the impact of BAF emissions, which IDEQ has not yet been able to quantify. The results for each year of meteorological data are summarized in Table 1-8 below. The appropriate background concentrations have been added to determine compliance with NAAQS.

Table 1-8 PM-10 Modeling Results

Met Data Year	Maximum Modeled Impacts ($\mu g/m^3$) Annual	24-hour
1987	14.25	41.82
1988	13.78	46.23
1989	**17.47**	**50.96**
1990	17.13	49.48
1991	16.77	48.83
Maximum $\mu g/m^3$	17.47	50.96
Background $\mu g/m^3$ [1]	31	93
Total $\mu g/m^3$	48.47	143.96
NAAQS ($\mu g/m^3$)	50	150
% NAAQS	97.9%	96.0%

1 Background concentration reported includes the addition of IDEQ recommended buffer value of 5 ug/m3 annual average, 20 ug/m3 24-hour average to IDEQ provided background concentrations.

The annual average PM-10 impacts for the 1989 meteorological year, the year with the highest reported maximum impact of the facilities, are shown in Figure 1-5. All receptors with predicted annual average PM-10 impacts over 7.5 ug/m^3 are shown in bold.

The highest first-high 24-hour impacts for 1989 are illustrated in Figure 1-6. All receptors with predicted impacts over 25 ug/m^3 are shown in bold. The maximum impacts occur within the 25-meter grid, and all impacts are below NAAQS.

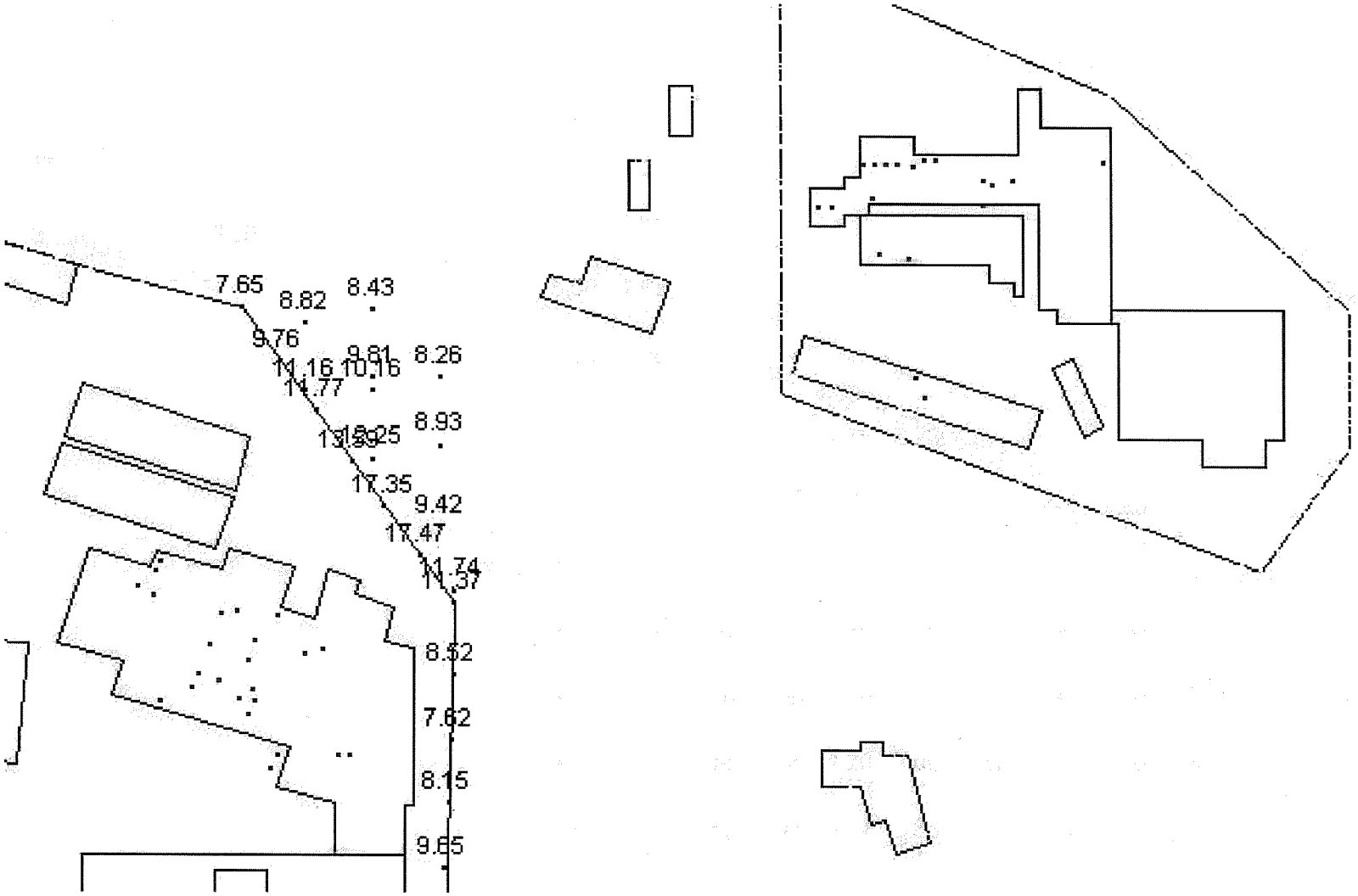

Figure 1-5 Maximum Predicted Annual PM-10 Impacts, 1989

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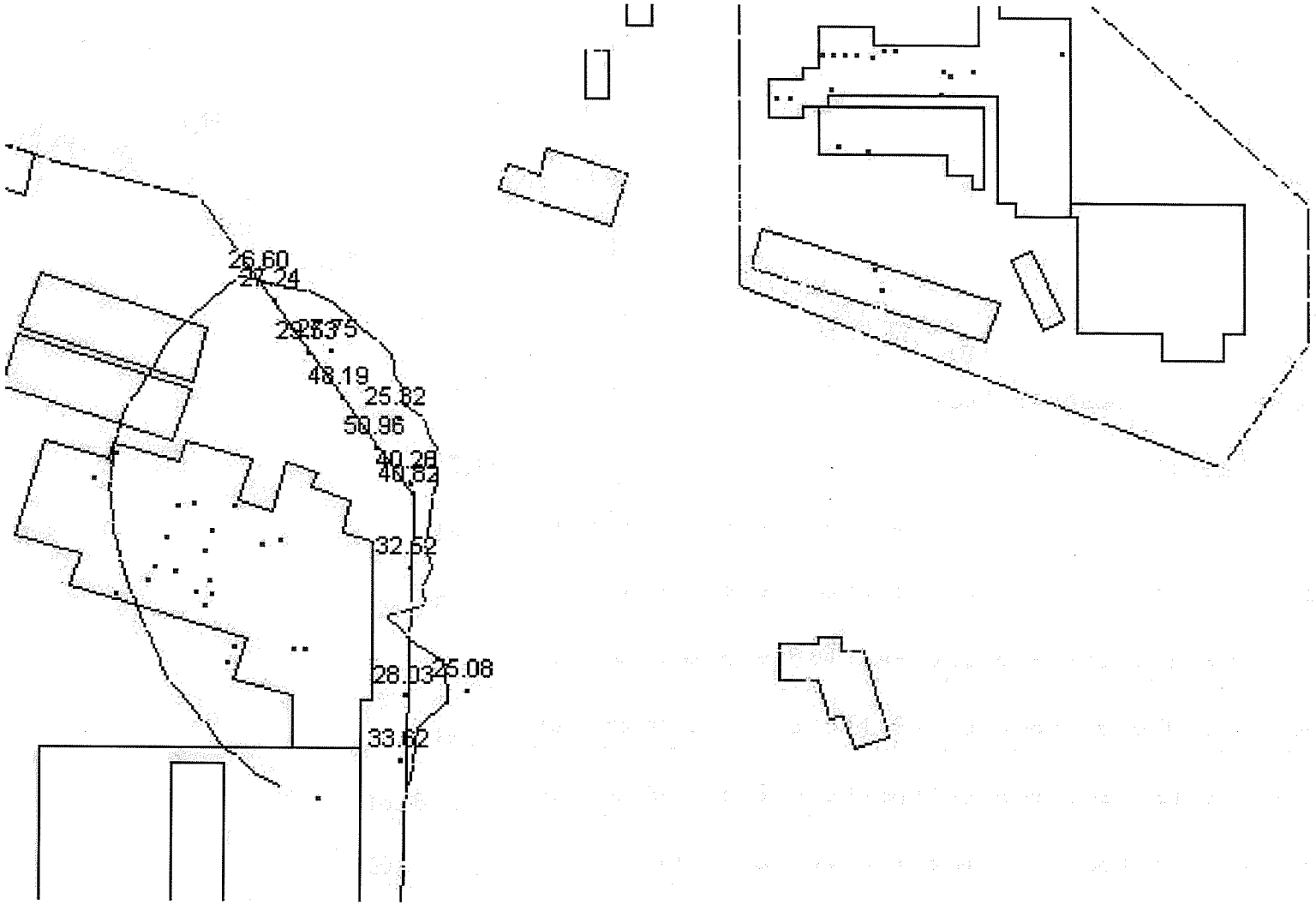


Figure 1-6 Maximum Predicted 24-hour Average PM-10 Impacts, 1989

1.3.5 CO MODELING

The Nonpareil CO sources were modeled for the 1-hour and 8-hour averaging times. The results for each year of meteorological data are summarized in Table 1-9 below. All impacts are below significance levels; no further CO modeling is required.

Table 1-9 CO Modeling Results

Met Data Year	Maximum Modeled Impacts ($\mu g/m^3$) 1-hour	8-hour
1987	248	117
1988	226	**124**
1989	251	131
1990	227	114
1991	**255**	133
Maximum $\mu g/m^3$	255	124
Significance Level ($\mu g/m^3$)	2000	500
% Significance	12.8%	24.8%

1.3.6 SUMMARY

The modeling results indicate that criteria pollutant emissions from this facility will not cause or contribute to any exceedances of NAAQS. Table 1-10 summarizes the results of the modeling demonstrating NAAQS compliance. The modeled impacts are illustrated in Figures 1-3 through 1-6.

Table 1-10 Modeling Results Summary

Pollutant	Averaging Time	Location	Met Data Year	Maximum $\mu g/m^3$	Backgrd $\mu g/m^3$	Total $\mu g/m^3$	NAAQS $\mu g/m^3$	% NAAQS
SO_2	Annual		1988	21.2 [1]	8	29.2	80	36.5%
	3-hour		1989	257	34	291	1300	22.4%
	24-hour		1989	124 [2]	26	150	365	41.1%
NO_2	Annual		1988	40.8 [2]	17	58.7	100	58.7%
PM-10	Annual		1989	17.47	31 [3]	48.47	50	97.9%
	24-hour		1989	50.96	93 [3]	143.96	150	96.0%
CO	1-hour		1990	154.3	N/A (insignificant)			
	8-hour		1989	86.6	N/A (insignificant)			

1 Excludes BAF impacts within BAF ambient air boundary
2 Maximum reported impact is caused by BAF impacts within BAF ambient air boundary
3 Background PM-10 concentrations include buffer value recommended by IDEQ to account for BAF PM-10 emissions IDEQ could not quantify

Air Quality Modeling Addendum
Nonpareil Corporation, Blackfoot, Idaho
July 2006

Introduction

This report provides limited updates to the air quality report submitted in the Nonpareil permit application. The only changes between the updated modeling report here and that submitted in Spring 2006 are recalculated dryer emission rates, and associated raised stack height for facility dryer stacks. Those changes affect only the previously reported PM-10 analysis. Previous analyses for all other pollutants are conservative since they included the maximum emission rates under the proposed permit with stack heights at or less than currently proposed levels.

Therefore, this analysis includes only selected portions of the Spring 2006 modeling report, specifically those relating to the model input parameters for the dryer stacks and the PM-10 modeling results.

Updates to the Spring 2006 Modeling Report

Tables 1-2 and 1-4 of the most recent modeling report should be replaced with the following tables:

Table 1-2 Emission Units and Stack Parameters

Source ID	Source Description	Easting (X)	Northing (Y)	Base Elevation	Stack Height	Temperature	Exit Velocity	Stack Diameter
		(m)	(m)	(m)	(ft)	(°F)	(fps)	(ft)
BLR6_8		387828	4783966	1363	100.0	116.0	50.0	3.5
AEV		387764	4783922	1363	50.9	80.0	55.2	2.7
CBB		387803	4783908	1363	38.5	130.0	40.2	1.9
CHX		387780	4783917	1363	40.3	190.0	27.8	3.2
CHY		387784	4783917	1363	31.4	167.0	24.5	2.1
CHZ		387789	4783917	1363	35.8	187.0	14.9	1.8
CNV		387825	4783899	1364	64.0	400.0	87.5	3.0
CNW		387818	4783899	1363	64.0	400.0	87.5	3.0
CTQ		387801	4783903	1363	36.7	159.0	39.9	2.0
CTR		387798	4783903	1363	35.5	135.0	69.1	1.3
CTS		387795	4783903	1363	35.5	133.0	38.6	1.1
CTT		387788	4783903	1363	35.5	122.0	44.7	1.1
CXX		387826	4783924	1364	41.2	122.0	58.2	2.5
CYY		387826	4783917	1364	46.1	118.0	0.0	0.0
DHT		387762	4783953	1363	50.2	140.0	73.4	3.0
DHU		387767	4783953	1363	65.8	140.0	73.4	3.0
DHZ		387769	4783957	1363	65.8	135.0	44.3	3.0
DQA		387765	4783937	1363	63.8	140.0	46.4	3.5
DQB		387757	4783937	1363	63.8	140.0	46.4	3.5
DUQ		387765	4783943	1363	62.4	140.0	49.2	3.5
DUT		387757	4783943	1363	62.4	140.0	49.2	3.5

DUV		387768	4783938	1363	68.8	135.0	49.9	4.0
HEB		387825	4783882	1364	58.5	171.0	0.0	0.0
HNL		387809	4783875	1363	22.3	158.0	0.0	0.0
TAC		387617	4784000	1363	45.0	450.0	46.2	1.3
TAH		387617	4784003	1363	45.0	450.0	40.0	1.4
TCD		387631	4784028	1364	32.5	148.0	0.0	0.0
DSO		387750	4783947	1363	50.5	100.0	0.0	0.0
ALB		387789	4783928	1363	34.6	169.0	53.8	1.6
ALQ		387786	4783928	1363	26.3	101.0	0.0	1.1
ALV		387783	4783931	1363	28.7	159.0	57.4	2.0
ALW		387782	4783931	1363	33.6	112.0	48.9	2.0
AEW		387764	4783919	1363	52.4	80.0	52.0	2.2
CIR		387807	4783936	1363	31.9	133.0	67.9	1.8
CTU		387824	4783905	1363	39.5	160.0	164.0	0.9
TEM		387624	4784001	1363	31.7	105.0	0.0	0.0
TEE		387627	4784004	1363	32.2	105.0	0.0	0.0
EU_01	Processing East boiler	388318	4784088	1365	60.0	410.0	37.7	2.3
EU_02	Processing west boiler	388313	4784088	1365	60.0	410.0	22.2	3.0
EU_03	Starch Dryer	388352	4784018	1365	28.0	92.0	29.7	2.0
EU_04	Scratch Mash Dryer	388374	4784098	1365	45.0	92.0	55.5	2.8
EU_05	Scratch Mash baghouse	388377	4784097	1365	24.0	70.0	0.0	0.0
EU_10	Process Peeler exhaust	388336	4784071	1365	24.0	190.0	0.2	2.0
EU_11	Flaker #1	388330	4784104	1365	54.0	120.0	47.2	3.0
EU_12	Flaker #2	388334	4784104	1365	54.0	120.0	47.2	3.0
EU_13	Flaker #3	388338	4784104	1365	54.0	120.0	47.2	3.0
EU_14	Flaker #4	388342	4784104	1365	54.0	120.0	47.2	3.0
EU_15	Flaker #5	388348	4784103	1365	54.0	120.0	47.2	3.0
EU_16	Grinding Circuit #1 baghouse	388356	4784106	1365	20.0	70.0	0.0	0.0
EU_17	Starch Plant baghouse	388349	4784026	1365	20.0	70.0	0.0	0.0
EU_18	Grinding Circuit #2 baghouse	388418	4784105	1365	16.5	70.0	59.0	1.1
EU_19	Flaker Baghouse	388352	4784106	1365	20.0	70.0	103.2	1.2
EU_20	Dehy North Boiler	388072	4783957	1364	28.0	380.0	20.2	1.6
EU_21	Dehy South Boiler	388070	4783953	1364	28.0	380.0	4.6	3.0
EU_22	Dehy Dryer #1A-stage	388100	4783938	1364	41.5	187.0	40.8	2.5
EU_23	Dehy Dryer #1B-stage	388115	4783937	1364	41.5	150.0	18.9	3.0
EU_24	Dehy Dryer #2A-stage	388094	4783938	1364	41.5	187.0	40.8	2.5
EU_25	Dehy Dryer #2B-stage	388107	4783928	1364	41.5	150.0	18.9	3.0
EU_26	Dehy Dryer #3A-stage	388090	4783926	1364	41.5	187.0	40.8	2.5
EU_27	Dehy Dryer #3B-stage	388104	4783921	1364	41.5	150.0	27.2	2.5
EU_28	Dehy Dryer #4A-stage	388086	4783915	1364	41.5	160.0	34.0	2.5
EU_29	Dehy Dryer #4B-stage	388093	4783913	1364	23.0	150.0	21.2	2.0
EU_30	Dehy Dryer #4C-stage	388106	4783910	1364	23.0	130.0	13.1	1.8
EU_31	Dehy Dryer #5A-stage	388084	4783910	1364	41.5	160.0	47.8	3.4
EU_32	Dehy Dryer #5B-stage	388101	4783906	1364	41.5	150.0	34.5	2.6
EU_33	Dehy Dryer #5C-stage	388107	4783905	1364	41.5	130.0	37.2	2.0
EU_34	Dehy Bin Dryer	388125	4783923	1364	41.5	90.0	6.0	1.4

EU_39	Dehy research Dryer	388146	4783830	1364	24.0	95.0	6.0	0.5
EU_40	Packaging Baghouse #1	388137	4783885	1364	20.0	70.0	53.5	0.5
EU_41	Packaging Baghouse #2	388141	4783885	1364	20.0	70.0	148.6	0.5
EU_42	Crush Room Baghouse #1	388115	4783886	1364	16.0	70.0	0.0	0.0
EU_43	Crush Room Baghouse #2	388113	4783880	1364	16.0	70.0	0.0	0.0
EU_44	Dehy Steam Peeler	388069	4783945	1364	24.0	190.0	0.3	2.0
EU_01_NG	Processing West boiler NG	388318	4784088	1365	60.0	410.0	37.7	2.3
EU_02_NG	Processing East boiler NG	388313	4784088	1365	60.0	410.0	22.2	3.0

Table 1-4 Model Files

Description	Model File	Meteorological Data Year	Results
PM-10 refined modeling	Nonpareil0706_yr_PMTEN	1987 - 1991	All impacts below NAAQS

1.3.4 PM-10 Modeling

Section 1.3.4 should be replaced with the following:

The Nonpareil PM-10 sources were modeled for the annual and 24-hour averaging times. An IDEQ-recommended buffer was added to background concentrations to account for the impact of BAF emissions that IDEQ has not been able to quantify to date. The results for each year of meteorological data are summarized in Table 1-8 below. The appropriate background concentrations have been added to determine compliance with NAAQS.

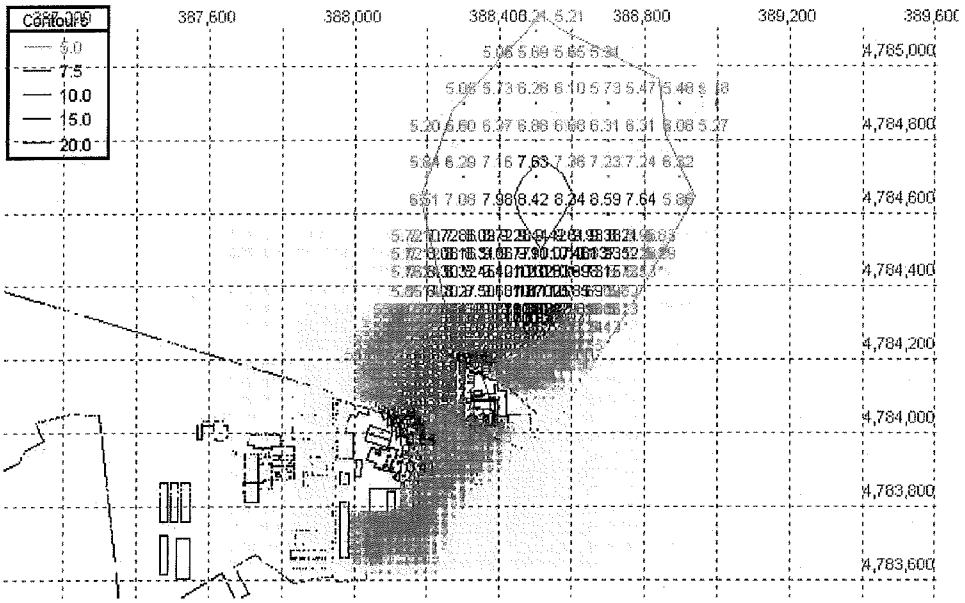
Table 1-8 PM-10 Modeling Results

	Maximum Modeled Impacts ($\mu g/m^3$)	
Met Data Year	**Annual**	**24-hour**
1987	12.6	44.5
1988	12.0	47.6
1989	**14.4**	**49.4**
1990	14.3	46.1
1991	14.1	44.2
Maximum $\mu g/m^3$	14.4	49.4
Background[1] $\mu g/m^3$	31	93
Total $\mu g/m^3$	45.4	142.4
NAAQS ($\mu g/m^3$)	50	150
% NAAQS	90.8%	94.9%

1 Background concentration reported includes the addition of IDEQ recommended buffer value of 5 ug/m^3 annual average, 20 ug/m^3 24-hour average to IDEQ provided background concentrations.

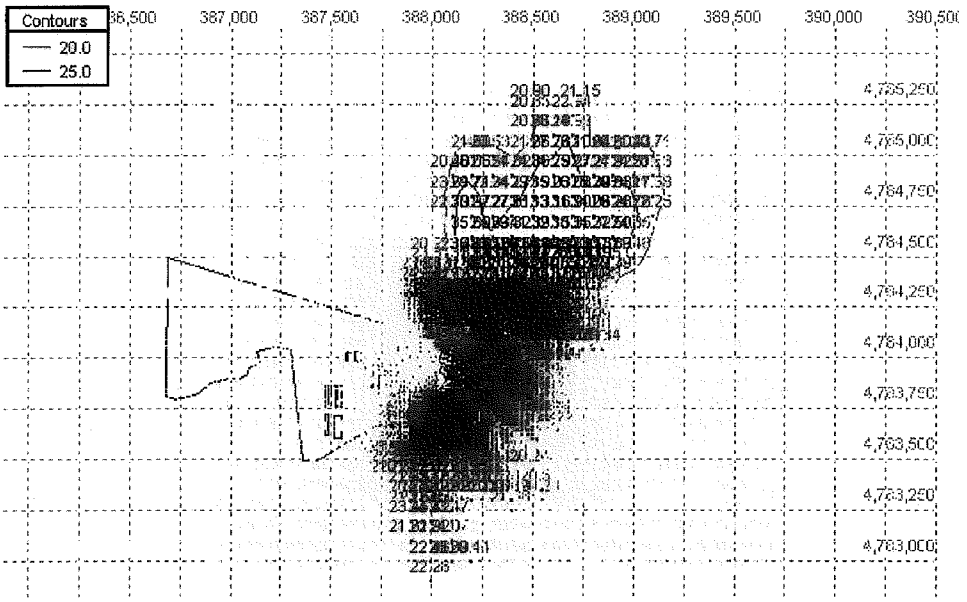
The annual average PM-10 impacts for the 1989 meteorological year, the year with the highest reported maximum impact of the facilities, are shown in Figure 1-5. All receptors with predicted annual average PM-10 impacts over 7.5 ug/m^3 are shown in bold.

Figure 1-5 Maximum Predicted Annual PM-10 Impacts, 1989



The highest first-high 24-hour impacts for 1989 are illustrated in Figure 1-6. All receptors with predicted impacts over 25 ug/m^3 are shown in bold. The maximum impacts occur within the 25-meter grid, and all impacts are below NAAQS.

Figure 1-6 Maximum Predicted 24-hour Average PM-10 Impacts, 1989



1.3.6 Summary

Section 1.3.6 should be replaced with the following:

The modeling results indicate that criteria pollutant emissions from this facility will not cause or contribute to any exceedances of NAAQS. Table 1-10 summarizes the results of the modeling demonstrating NAAQS compliance. The modeled impacts are illustrated in Figures 1-3 through 1-6.

Table 1-10 Modeling Results Summary

Pollutant	Averaging Time	Location	Met Data Year	Maximum µg/m³	Backgrd µg/m³	Total µg/m³	NAAQS µg/m³	% NAAQS
SO_2	Annual		1988	21.2 [1]	8	29.2	80	36.5%
	3-hour		1989	257	34	291	1300	22.4%
	24-hour		1989	124 [2]	26	150	365	41.1%
NO_2	Annual		1988	40.8 [2]	17	58.7	100	58.7%
PM-10	Annual		1989	14.4	31 [3]	45.4	50	90.8%
	24-hour		1989	49.4	93 [3]	142.4	150	94.9%
CO	1-hour		1990	154.3	N/A (insignificant)			
	8-hour		1989	86.6	N/A (insignificant)			

4 Excludes BAF impacts within BAF ambient air boundary
5 Maximum reported impact is caused by BAF impacts within BAF ambient air boundary
6 Background PM-10 concentrations include buffer value recommended by IDEQ to account for BAF PM-10 emissions IDEQ could not quantify

Air Quality Modeling Report
Nonpareil Corporation, Blackfoot, Idaho
April 2008

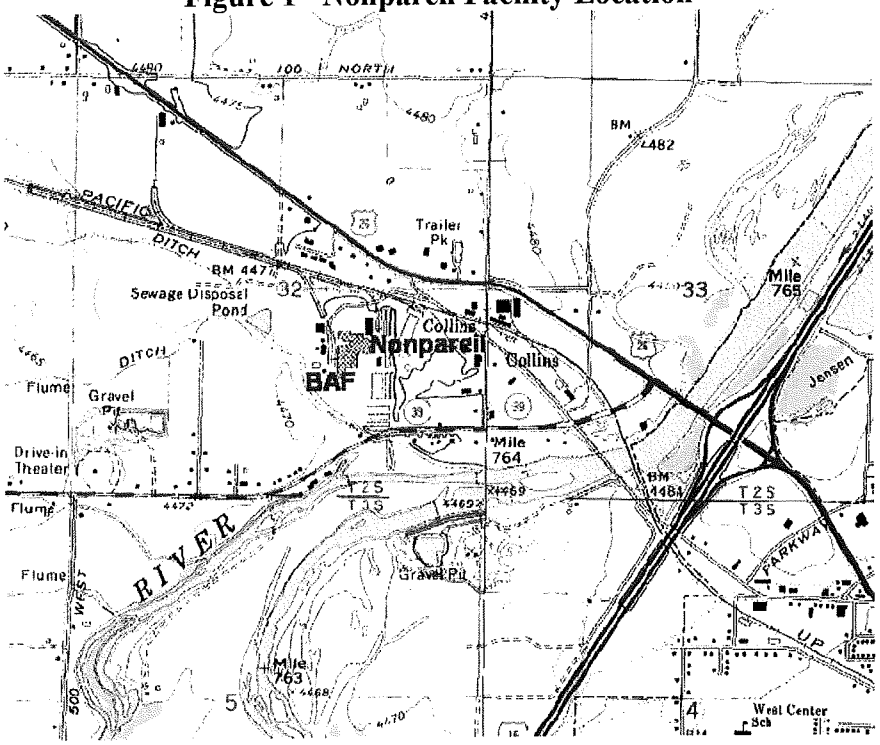
1.0 PURPOSE

This air quality modeling report describes modeling prepared to support a proposed modification to the facility's current permit P-050300. Nonpareil Corporation (Nonpareil) proposes to construct a new east processing boiler, at their existing facility in Blackfoot, Idaho. The new boiler will replace the existing east processing boiler which failed in early March. The new boiler is capable of combusting natural gas or No. 2 fuel oil. The project is considered high priority because the facility's production capability will be limited until the replacement boiler is in place. This document describes the air quality analyses prepared to support the Permit to Construct (PTC) application for the proposed east boiler replacement at their facility just west of Blackfoot, Idaho.

1.1 INTRODUCTION

This modeling analysis was prepared consistent with an IDEQ-approved modeling protocol to support the facility's PTC application for the proposed east boiler replacement. This report documents air quality modeling results and compares those results against applicable impact limits. The results in this modeling report are consistent with those presented in draft in the IDEQ-approved modeling protocol for this project. They differ only in that in addition to the worst-case scenario and analysis described in the modeling protocol, a second scenario was included to show that when run on natural gas, the change in impacts with the proposed action would not represent a significant increase in impacts. That scenario was conservatively included in order to address the potential impacts resulting from both operating scenarios permitted for the east boiler. Both operating scenarios, natural gas and fuel oil were modeled to show that the proposed replacement of boiler 1 would not result in a significant increase in impacts using either fuel. Figure 1 below shows the facility location.

Figure 1 Nonpareil Facility Location



1.2 MODEL DESCRIPTION/ JUSTIFICATION

The model chosen is AERMOD, the US EPA approved model recommended by IDEQ. AERMOD has recently replaced the Industrial Source Complex model ISCST3 as the primary recommended model for facilities with multiple emission sources. AERMOD was applied as recommended in EPA's Guideline on Air Quality Models, consistent with guidance in IDEQ's Air Quality Modeling Guideline. The model was applied exactly as described in the IDEQ-approved modeling protocol. Attachment B documents the IDEQ protocol approval. Recommended regulatory default options were employed. Terrain data was processed consistent with the IDEQ guidance, discussions with IDEQ's Mr. Schilling, and EPA guidance for AERMAP, as documented in the IDEQ-approved modeling protocol. Meteorological data recommended for this application was supplied by IDEQ. The Prime building downwash algorithm was employed. Modeling analyses were performed for all pollutants emitted above IDEQ emission thresholds, even though the proposed action represented a net decrease in emissions for almost all those pollutants. That included PM-10, NO2, CO and SO2, and toxic air pollutants (TAPs) exceeding the IDAPA 58.01.01.585 or 586 emission levels (ELs). The impact analyses assess the potential increase in impacts from the boiler as a result of the proposed replacement. The analyses show that few increases in impacts will occur. Maximum impact increases will be insignificant for criteria pollutants and within IDAPA 58.01.01.585 AAC or 586 AACC impact limits for TAPs. Chemical transformation of emissions was not considered.

1.3 EMISSION AND SOURCE DATA

Model stack and emissions data representative of the worst case emissions at the Nonpareil boiler for each of the fuel options before and after the proposed action were incorporated directly into the air quality modeling analysis. As described in the introduction, in addition to the worst-case emissions scenario burning fuel oil described in the modeling protocol, a second scenario was added to show that there would also be no significant increase in impacts when the replacement boiler burns natural gas. The fuel oil scenario described in the modeling protocol generally represented a decrease in emissions for all criteria pollutants and most TAPs. Four IDAPA TAPs will see an increase in potential emissions when burning fuel oil, three TAPs will see increases in potential emissions under the natural gas scenario. Existing boiler stack parameters are consistent with permit P-0050300 and are the same as used in IDEQ-approved 2006 facility permit modeling. Consistent with the current permit, the current stack height is 26 feet, but the stack must been raised to 60 feet before fuel oil is combusted. No fuel oil has been used since the permit was issued.

The proposed replacement boiler was modeled with stack parameters based upon the engineering specifications for the new boiler. Please note that those specifications for the replacement boiler include a slight difference in exit velocity for the two fuels, but no other differences in model stack parameters. The proposed boiler stack height will be raised to 45 feet initially when operating on natural gas and 60 feet prior to fuel oil being combusted. Emission rates modeled for each pollutant are the maximum permitted boiler emissions under the proposed action over the duration of the standard for that pollutant. For the fuel burning scenario, the emission rate modeled is the maximum allowable under the permit burning any fuel for the duration of the respective averaging period. In every case except CO, the worst-case scenario represents burning fuel oil as much as allowed (requested and currently permitted fuel limits), then burning natural gas for the rest of the year (for annual average impact analyses). Since natural gas combustion has a higher CO emission factor, the fuel oil scenario includes natural gas CO emission rates since CO has only short term impact limits and fuel oil can not be combusted year-round. Emissions for the proposed replacement boiler were entered as positive along with stack parameters consistent with the new boiler, emissions from the currently permitted boiler were entered as negative along with current actual and permitted stack parameters. These model results show the maximum increase in pollutant impacts from the proposed boiler replacement. Those impact increases are quite small, since the proposed action would result in a net decrease in all criteria pollutant PTE during worst-case scenarios when burning fuel oil and small increases in emissions when burning natural gas. In addition, the natural gas scenario is offset by raising the stack height to GEP. The TAPs modeled under each operating scenario resulted in net decreases or very small increases for all TAPs. The derivation of all emission rates is documented in the permit application this modeling report accompanies.

The emissions from the proposed replacement boiler under the two fuel scenarios were estimated to exceed IDEQ modeling thresholds for criteria pollutants PM-10, NOx, SO2, and CO, and six IDAPA 58.01.01.586 TAPs. The maximum increase in impacts for all those pollutants as a result of the proposed action was estimated by modeling all criteria pollutant and all TAPs that showed a net increase in emissions under either scenario. Impact assessment requirements are met by showing that the maximum increase in impacts as a result of the proposed action, under either fuel option, is below the significant impact levels (SILs) for all criteria pollutants, and below IDAPA 58.01.01.586 AACC impact limits for all the TAPs emitted above IDAPA 58.01.01.586 EL thresholds.

Table 1 summarizes all model source data consistent with the proposed modification for both fuel scenarios. The printed spreadsheet describing derivation of the worst case model source data, and IDEQ's concurrence with the methodology is in Attachment C. The version in Attachment B documents how all model source parameters were derived. The file Nonpareil Model Source Data Change 041008.xls provides the same spreadsheet in the zipped electronic files.

Modeling analyses were performed for all pollutants listed in Table 1 to estimate maximum increase in impacts during each averaging period for which an applicable ambient air quality impact limit exists. All model sources had emissions understood to represent worst-case permitted emissions for each averaging period (positive for the proposed replacement boiler, negative for the permitted boiler to be replaced) to estimate the worst case increase in impacts under proposed emissions from the replacement boiler. The stack parameters represent manufacturer's specifications and worst-case emissions scenarios for each fuel option with the replacement boiler, and the same for the currently permitted boiler with data consistent with permit P-050300. Potential worst-case increases in impacts for each pollutant and averaging period were directly output by the model. All model source data underwent quality assurance review by JBR Environmental, and the facility owners and representatives (with information from manufacturer's of the proposed replacement boiler).

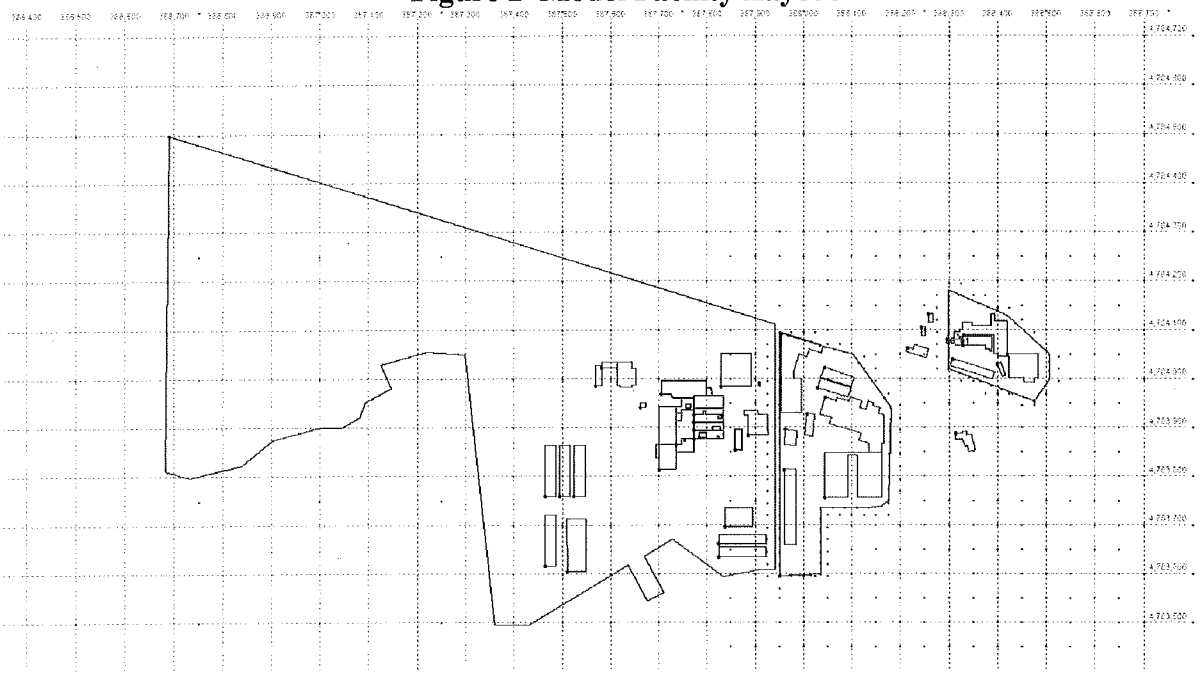
Table 1 Model Source data

Source ID	Stack Rel Type	Source Description	Easting (X)	Northing (Y)	Base Elev	Stk Ht	Te mp	Exit Vel	Stack Diam	SO2	PMT EN	CO	PMTE NAN	SO2	NO2	ARSENIC	BERYLL	CADMIU M	CHRVI	FORMAL D
			m	m	m	ft	°F	m/s	m	lb/hr	lb/hr	lb/hr	tons/yr	tons/yr	tons/yr	ton/yr	ton/yr	ton/yr	ton/yr	ton/yr
EU_01	DEF	Processing East boiler #6 current	388318	4784088	1365	60	410	11.50	0.711	66.54	5.12	3.34	19.27	247.88	56.62		2.83E-05	4.29E-04	2.49E-04	3.51E-02
08_01	DEF	Processing East boiler #2 new	388318	4784088	1365	60	335	10.03	0.914	24.48	1.12	4.40	4.44	91.21	27.04		5.32E-04	5.70E-04	5.32E-04	4.44E-02
EU_01_NG	DEF	Processing East NG Current	388318	4784088	1365	26	410	11.50	0.711	0.0238	0.302	3.34	1.32	0.1043	8.70	3.48E-05		1.91E-04		1.30E-02
08_01_NG	DEF	Processing East boiler NG New	388318	4784088	1365	60	335	10.31	0.914	0.0314	0.398	4.40	1.74	0.1376	11.47	4.59E-05		2.52E-04		1.72E-02

Building downwash was accounted for by including in the AERMOD model analysis Prime building downwash from all buildings within the facility, and at the neighboring Basic American Foods (BAF) facility, exactly as described in the IDEQ-approved modeling protocol. All Nonpareil buildings and tanks over 10' tall are included in the building downwash analysis included in the modeling, and all BAF building information supplied by IDEQ was utilized. Attachment A provides a summary of the building downwash run analysis and results from the BPIP-Prime input and output files.

Figure 2 shows the model layout, with the facility property / ambient air boundary. The ambient air boundaries, buildings, and boiler model sources are exactly the same as used in the approved 2006 permit modeling analysis. The Nonpareil boundary can be seen in two separate sections on the right of the figure. The larger black perimeter on the left side of the figure is the BAF property and ambient air boundary. Note that this analysis has receptors across the BAF boundary. Facility buildings and tanks are shown in black within the facility boundary, and facility boiler emission sources are shown and labeled in red (on the northeast Nonpareil parcel). The background grid is the UTM coordinate system, NAD 27, with units in meters. The dots beyond the property boundary indicate the inner-most model receptors. The inner receptor network also matches that used in the IDEQ-approved 2006 permit modeling.

Figure 2 Model Facility Layout



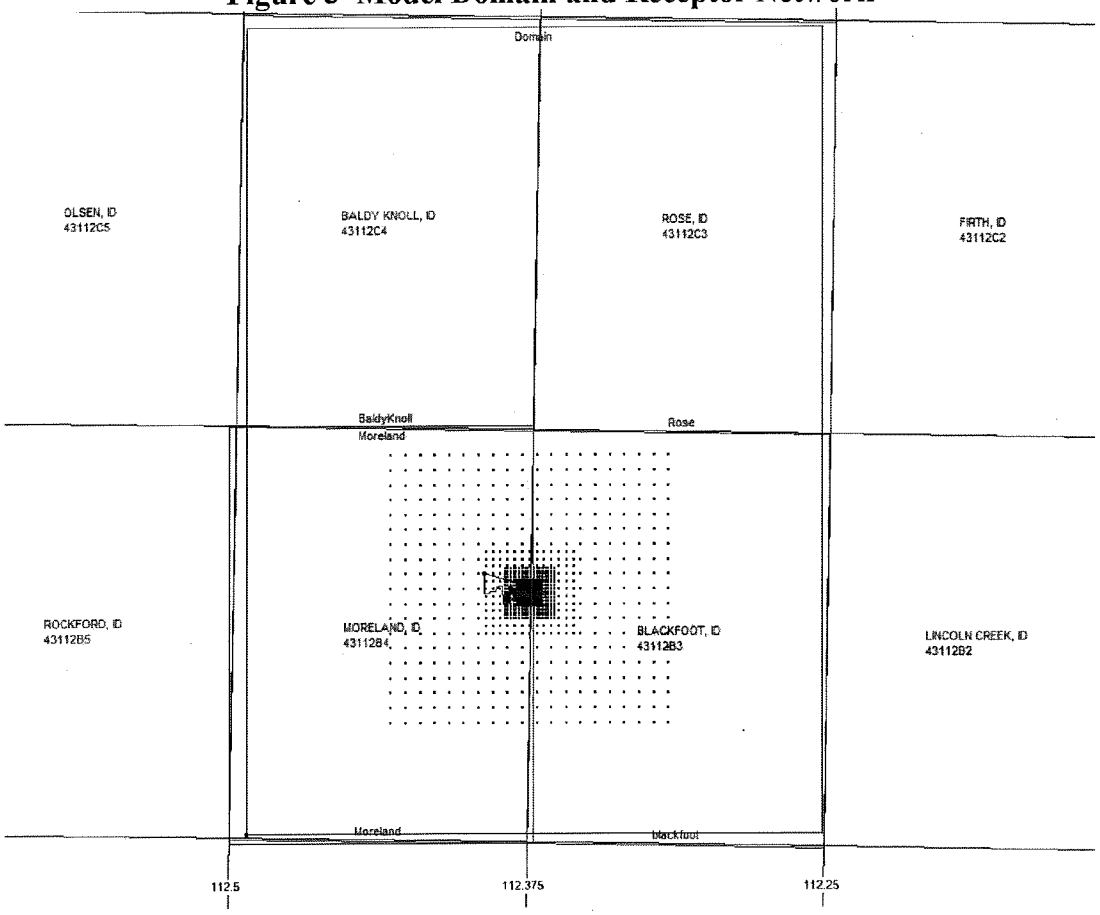
1.4 RECEPTOR NETWORK / MODEL DOMAIN

The Nonpareil property boundary / public access limit was used as the ambient air boundary for this analysis, exactly as described in the IDEQ-approved modeling protocol and consistent with the draft modeling run examples provided with that submittal. The BAF property boundary / public access limit is shown, but receptors were placed regularly across the BAF property. Model receptors were placed from the public access limit out at least 4 kilometers in every direction. The dense inner model receptors can be seen as black dots outside the ambient air boundary in Figure 2. The AERMOD modeling domain was conservatively calculated to include nearly the entire USGS quad for any receptor or any elevated point beyond the edge of the receptor network that meets the AERMAP / AERMOD guidance condition of 10% elevation gain. This method is built into the BeeLine BEEST software used to prepare these analyses, and is recommended as conservative in meeting or exceeding new EPA guidance by software developer Dick Perry of Bee-Line software.

Receptor density is 25 meters along the ambient air boundary, 50 meters for at least the first 100 meters, then 100 meters out to 500 meters away from the property boundary, 250 meters out to 1,000 meters from the ambient air boundary, 500 meters to 4 kilometers.

Figure 3 shows the facility and its ambient air boundary (the white spot in the middle of dense inner receptor network that show up as black in the center), the receptor network (the black dots around the denser inner model receptors), the model domain (green line just inside USGS quad lines around the receptor network), the latitude and longitude grids in the vicinity, and the USGS quad maps that cover the model domain.

Figure 3 Model Domain and Receptor Network



All model predicted maximum impact increases greater than 1.1% of applicable impact limits occurred within 1 kilometer of the ambient air boundary, within the 100 meter grid density. All other maximum impact increases, none greater than 1.1% of applicable impact limits, occurred within 1.5 kilometers of the facility in 250 meter grid spacing. Few impact increases approached applicable SILs or AACC impact limits. The maximum impacts are shown to drop off considerably moving toward the outer edge of the receptor network.

The receptor networks employed ensured that the analysis meets or exceeds IDEQ receptor network requirements and capture the maximum impact from the facility. Therefore, no supplemental receptor network or expansion of the model domain was required or included.

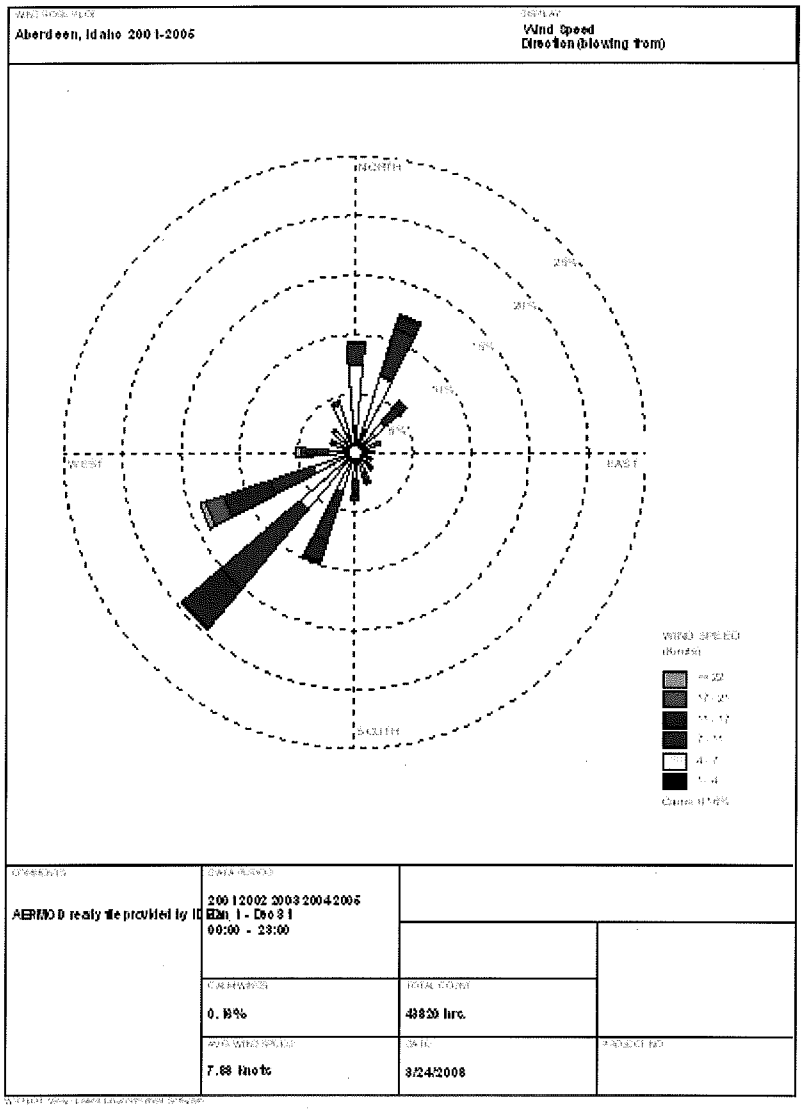
1.5 AERMAP INPUT AND ELEVATION DATA

Geographic data was processed exactly as described in the IDEQ-approved modeling protocol, consistent with the examples provided with that protocol. All building and source base and receptor elevations were calculated from USGS 7.5-degree (30m or less horizontal resolution) DEM data (UTM NAD 27) downloaded from Geo Community (www.geocommunity.com), the USGS freeware download system, using the Bee-Line BEEST preprocessing system. That same DEM data was used in the AERMAP preprocessor to prepare the terrain data for the model domain to run AERMOD. The anchor location and user location required by AERMAP was near the center of the northeastern Nonpareil facility section, near the boiler. Electronic data files sufficient to review or duplicate the AERMAP model application are included with this report.

1.6 METEOROLOGICAL DATA AND LOCAL PARAMETERS

Model meteorological data recommended for use in this analysis was provided by IDEQ, and was applied exactly as described in an IDEQ-approved modeling protocol and consistent with the draft modeling runs provided with that protocol. The surface data provided was collected from 2001 to 2005 in Aberdeen, Idaho in five annual files. It was processed along with Boise upper air data. The only change made during modeling was to adjust the onsite data site number from 99999 to 24999, because the model wouldn't run with the 99999 location which indicates an unknown site. The adjusted meteorological data files are included in the zipped electronic files accompanying this submission. Limited information was available on the source of that meteorological data file or exact monitoring location. No wind flow direction alternation was applied. Initial indications are that the wind flow direction for the Aberdeen data was reasonably representative of the site, but the stability profile there seemed to be influenced by lake breezes that were questionably representative but yielded conservative results. Default meteorological settings were employed. Nonpareil reserves the right to consider more representative meteorological data, or an alternative representation of this data, for future modeling analyses. Modeling analyses were prepared for the complete extent of the five year meteorological data file IDEQ provided. Figure 4 shows the wind rose for the Aberdeen meteorological data file used in the modeling.

Figure 4 Aberdeen 2001 - 2005 Wind Rose



1.7 LAND USE CLASSIFICATION

Though the facility is near Blackfoot and its downtown area and there is some industrial land use in the vicinity, by the traditional Auer algorithm or most other reasoning, the land in the vicinity of the facility and across the model domain is generally open and features limited development that will affect wind flow at emission release heights. Therefore, as described in the IDEQ-approved modeling protocol and done in the draft modeling results presented with that protocol, the urban dispersion algorithm was not employed in this analysis; the rural dispersion algorithms were used.

1.8 BACKGROUND CONCENTRATIONS

Background concentrations to be used were recommended by Mr. Schilling of IDEQ in 2006 for the previous permit analysis. He again confirmed the same background concentrations for the current time. The Basic American Foods facility just W and SW of the Nonpareil facility is potential source of cocontributing pollutants. For previous NAAQS analyses, Mr. Schilling recommended modeling BAF as a cocontributor, and using a buffer for PM-10 impacts because IDEQ could not provide a current BAF PM-10 emission inventory. For this analysis, though, as described in the IDEQ-approved modeling protocol no background concentrations or cocontributing sources were included because the analysis shows that the change in impact from the current permitted actions would not result in a significant increase in criteria pollutant impacts, nor an exceedance of IDAPA TAP impact limits.

1.9 EVALUATION OF COMPLIANCE WITH IMPACT STANDARDS

The impact limit standards applicable to this analysis are the significant impact levels (SILs) for criteria pollutants, and the IDAPA 58.01.01.585 and 586 limits for TAPs listed in Table 4. Model predicted maximum increases in impacts reported are the highest predicted impact for the all average periods and for all TAP analyses, consistent with the modeling protocol and conservatively interpreting IDEQ and EPOA guidance. Table 2 shows the maximum model predicted increase in impact each year for each pollutant for each averaging period modeled for the fuel oil combustion scenario. Table 3 shows the same for the natural gas combustion scenario. The maximum impact for any of the five years is printed in bold.

Table 2 Maximum Model Predicted Impact Increases with Fuel Oil ($\mu g/m^3$)

Pollutant	Averaging Period	2001	2002	2003	2004	2005
PM_{10}	24 hour	0.00	0.00	0.00	0.00	0.00
	annual	0.00	0.00	0.00	0.00	0.00
NO_2	Annual	0.00	0.00	0.00	0.00	0.00
SO_2	3 hour	**0.00168**	0.00023	0.00114	0.00002	0.00007
	24 hour	0.00007	0.00003	**0.00017**	0.00	0.00
	Annual	0.00	0.00	0.00	0.00	0.00
CO	1 hour	3.5	3.4	3.4	3.3	3.4
	8 hour	2.7	2.9	3.0	3.2	3.1
Lead	Monthly	0.00	0.00	0.00	0.00	0.00
Arsenic	Annual	0.00	0.00	0.00	0.00	0.00
Beryllium	Annual	**0.00004**	**0.00004**	**0.00004**	**0.00004**	0.00003
Cadmium	Annual	**0.00001**	**0.00001**	**0.00001**	**0.00001**	**0.00001**
Chromium VI	Annual	**0.00004**	**0.00004**	**0.00004**	**0.00004**	0.00003
Formaldehyde	Annual	0.00121	0.00127	**0.00133**	0.00118	0.00108

Table 3 Maximum Model Predicted Impact Increases with Natural Gas (µg/m^3)

Pollutant	Averaging Period	2001	2002	2003	2004	2005
PM_{10}	24 hour	0.090	0.091	0.097	0.084	**0.108**
	annual	0.00008	0.00116	0.00118	**0.00159**	0.00109
NO_2	Annual	0.00547	0.00765	0.00782	**0.0105**	0.00721
SO_2	3 hour	0.077	0.078	0.070	**0.084**	0.059
	24 hour	0.007	0.007	0.008	0.007	**0.009**
	Annual	0.00007	0.00009	0.00009	**0.00013**	0.00009
CO	1 hour	13.2	**14.6**	13.4	13.9	13.0
	8 hour	5.4	5.1	5.8	**10.9**	4.7
Lead	Monthly	0.00	0.00	0.00	0.00	0.00
Arsenic	Annual	0.00	0.00	0.00	0.00	0.00
Cadmium	Annual	0.00	0.00	0.00	0.00	0.00
Formaldehyde	Annual	0.00001	0.00001	0.00001	**0.00002**	0.00001

Table 4 reports predicted maximum model predicted impacts from either scenario and associated worst-case ambient concentrations as a result of the proposed action. This table and the tables above provide all model impact results required on the IDEQ MI forms. Predicted maximum increases in impact do not to approach or exceed any applicable impact standard.

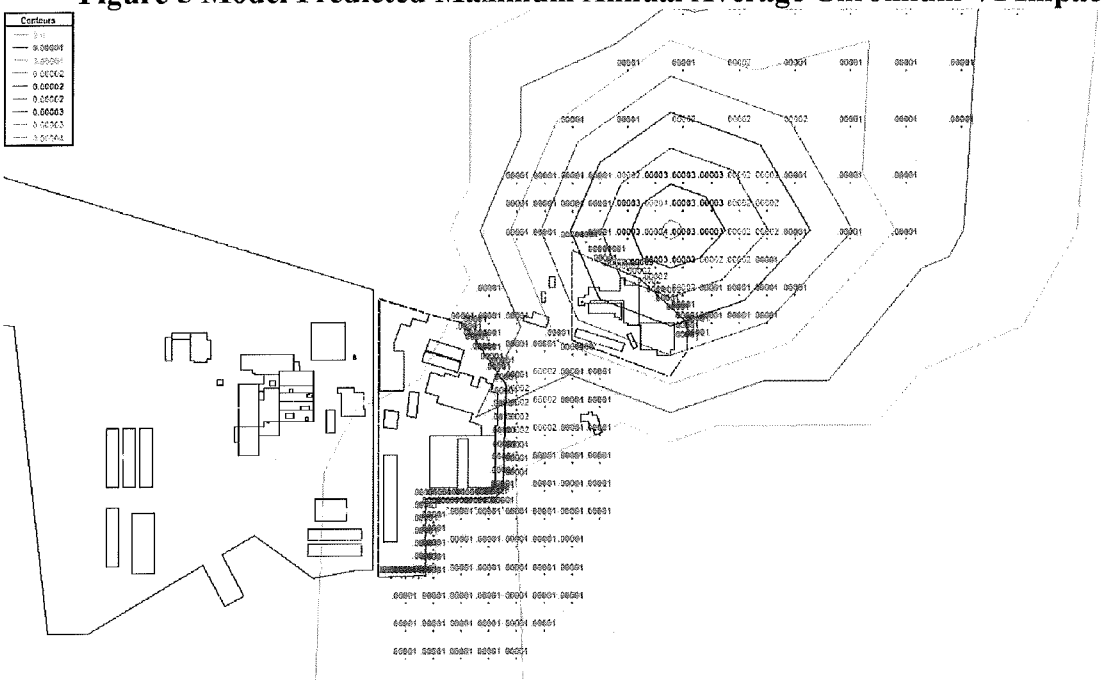
Table 4
Background Concentrations, Ambient Impact Limits and Method of Comparison with Ambient Air Quality Standards

Pollutant	Averaging Period	Modeled Maximum Increase in Impact (µg/m^3)	IDEQ AACC (µg/m^3)	SIL (µg/m^3)	Max Increase as % of applicable Impact limit
PM_{10}	24-hour	0.108	-	5	2.2%
PM_{10}	Annual	0.00159	-	1	0.2%
NO_2	Annual	0.0105	-	1	1.1%
SO_2	3-hour	0.084	-	25	0.3%
	24-hour	0.0086	-	5	0.2%
	Annual	0.00013	-	1	0.01%
CO	1-hour	14.6	-	2000	0.7%
	8-hour	10.9	-	500	2.2%
Arsenic	Annual	0.00	0.00023		0.0%
Beryllium	Annual	0.00004	0.0042		9.5%
Cadmium	Annual	0.00001	0.00056		1.8%
Chromium VI	Annual	0.00004	0.000083		48.2%
Formaldehyde	Annual	0.00133	0.077		1.7%
Nickel	Annual	0.00	0.0042		0.0%

Maximum model predicted increase in impacts for each pollutant and averaging period occurred to the NE of the boiler and the NE half of the Nonpareil property. All maximum increases in impact over 1.1% of the applicable impact standards occurred within the 100 meter grid density within 1 kilometer of the Nonpareil facility. The maximum impact increases for annual PM-10, NO2, SO2, and 24 hour average SO2, none more than 1.1% of the applicable impact limits, occurred just beyond the 100 meter grid spacing in 250 meter grid spacing approximately 1.5 km NE of the NE Nonpareil parcel. The maximum increase in impacts was from the natural gas operating scenario for the criteria pollutants, and from the fuel oil operating scenario for the TAPs. Those maximum impact increases are shown to be well below all applicable SIL impact limits for all criteria pollutants, no more than 2.2% of any SIL. No TAP impact increases will reach half their applicable IDAPA 58.01.01.586 AACC impact limits. Only one TAP, chromium VI, will see increases in impacts more than 10% of the applicable AACC.

Figure 5 shows the maximum model predicted annual average facility increase in chromium VI impacts. That is the only pollutant for which predicted increases in impacts exceed 10% of the applicable impact limit. Color coding shows the maximum facility impacts occurring off the northeastern Nonpareil property boundary, northeast of the boiler proposed to be replaced. Increases in impacts are predicted to be near zero in most other locations, and lower around other portions of the property boundary vicinity. All receptors with predicted maximum annual average increases in chromium VI impacts over 0.00001 ug/m3 (12% of the AACC) are shown in bold. As with all other pollutants, predicted impacts drop off promptly and continuously away from the ambient air boundary.

Figure 5 Model Predicted Maximum Annual Average Chromium VI Impacts



1.10 ELECTRONIC COPIES OF THE MODELING FILES

Electronic copies of all input, output, and support modeling files necessary to duplicate the model results are provided and accompany this submission in file "Nonpareil 0408 Boiler Replacement AQ Modeling Files.zip". Those files include:

- Nonpareil 0308 changes_yy_pp.ext and Nonpareil 0308 changes NG_yy_pp.ext, where
  NG designates runs for the Natural gas scenario; no NG identifies fuel oil scenarios,
  yy = year, from 01 to 05 for 2001 to 2005
  pp = the pollutant ID as in Table 1, and
  ext = .DAT for AERMOD input files, .LST for AERMOD model output files
- Nonpareil AERMAP files named NONPAREIL AERMAP.*, and the BeeLine .txt file documenting AERMAP domain determination
- The IDEQ provided ABERDEENyy CJ.PFL and SFC AERMET meteorological data files, where yy = year, from 01 to 05 for 2001 to 2005
- BPIP files Nonpareil 0308 changes.* and BPIP files Nonpareil 0308 changes NG.*
- Model source data and the derivation of worst case emission rates used on the Nonpareil Model Source Data change 041008.xls spreadsheet, providing an electronic version of information included in Table 1 and Attachment B

Attachment A

BPIP-Prime Model Input and Output Data Summary

(fuel oil scenario, only difference in natural gas scenario is lower permit boiler stack heights)

```
                    BEE-Line Software Version: 9.95

                     Input File - Nonpar 0308 changes.PRW
                     Input File - Nonpar 0308 changes.PIP
                    Output File - Nonpar 0308 changes.TAB
                    Output File - Nonpar 0308 changes.SUM
                    Output File - Nonpar 0308 changes.SO


                              BPIP (Dated: 04274)
 DATE : 03/27/2008
 TIME : 12:59:29 PM
 C:\JBR\Nonpareil\Nonpareil 0308 changes.BST BEESTWin BPIP-Prime Files
3/27/200

 ============================
 BPIP PROCESSING INFORMATION:
 ============================

   The P  flag has been set for preparing downwash related data
          for a model run utilizing the PRIME algorithm.

   Inputs entered in METERS will be converted to meters using a conversion
factor of 1.0000.  Output will be in meters.

   The UTMP variable is set to UTMY.  The input is assumed to be in
     UTM coordinates.  BPIP will move the UTM origin to the first pair of
     UTM coordinates read.  The UTM coordinates of the new origin will
     be subtracted from all the other UTM coordinates entered to form
     this new local coordinate system.

   Plant north is set to   0.00 degrees with respect to True North.
```

C:\JBR\Nonpareil\Nonpareil 0308 changes.BST BEESTWin BPIP-Prime Files
3/27/200

PRELIMINARY* GEP STACK HEIGHT RESULTS TABLE
(Output Units: meters)

Stack Name	Stack Height	Stack-Building Base Elevation Differences	GEP** EQN1	Preliminary* GEP Stack Height Value
EU_01	18.29	-0.50	13.07	65.00
08_01	18.29	-0.50	13.07	65.00

* Results are based on Determinants 1 & 2 on pages 1 & 2 of the GEP Technical Support Document. Determinant 3 may be investigated for additional stack height credit. Final values result after Determinant 3 has been taken into consideration.

** Results were derived from Equation 1 on page 6 of GEP Technical Support Document. Values have been adjusted for any stack-building base elevation differences.

Note: Criteria for determining stack heights for modeling emission

limitations for a source can be found in Table 3.1 of the GEP Technical Support Document.

BPIP (Dated: 04274)

DATE : 03/27/2008
TIME : 12:59:29 PM

C:\JBR\Nonpareil\Nonpareil 0308 changes.BST BEESTWin BPIP-Prime Files
3/27/200

BPIP output is in meters

SO	BUILDHGT	EU_01	5.03	5.03	5.03	5.03	5.03	5.03
SO	BUILDHGT	EU_01	5.03	5.03	5.03	5.03	5.03	5.03
SO	BUILDHGT	EU_01	5.03	5.03	5.03	5.03	5.03	5.03
SO	BUILDHGT	EU_01	5.03	5.03	5.03	5.03	5.03	5.03
SO	BUILDHGT	EU_01	5.03	5.03	5.03	5.03	5.03	5.03
SO	BUILDHGT	EU_01	5.03	5.03	5.03	5.03	5.03	5.03
SO	BUILDWID	EU_01	186.52	194.37	196.32	193.37	188.59	179.66
SO	BUILDWID	EU_01	165.26	152.52	139.00	126.64	111.64	98.59
SO	BUILDWID	EU_01	98.28	112.60	134.32	151.96	164.99	173.00
SO	BUILDWID	EU_01	186.52	194.37	196.32	193.37	188.59	179.66
SO	BUILDWID	EU_01	165.26	152.52	139.00	126.64	111.64	98.59
SO	BUILDWID	EU_01	98.28	112.60	134.32	151.96	164.99	173.00
SO	BUILDLEN	EU_01	126.64	111.64	98.59	98.28	112.60	134.32
SO	BUILDLEN	EU_01	151.96	164.99	173.00	186.52	194.37	196.32
SO	BUILDLEN	EU_01	193.37	188.59	179.66	165.26	152.52	139.00
SO	BUILDLEN	EU_01	126.64	111.64	98.59	98.28	112.60	134.32
SO	BUILDLEN	EU_01	151.96	164.99	173.00	186.52	194.37	196.32
SO	BUILDLEN	EU_01	193.37	188.59	179.66	165.26	152.52	139.00

```
SO XBADJ     EU_01     -71.10  -45.24  -22.48  -10.50  -10.63  -10.43
SO XBADJ     EU_01      -9.91   -9.09   -8.00   -9.09   -9.91  -10.43
SO XBADJ     EU_01     -10.63  -13.49  -17.52  -21.01  -30.54  -43.00
SO XBADJ     EU_01     -55.54  -66.40  -76.11  -87.78 -101.97 -123.89
SO XBADJ     EU_01    -142.05 -155.89 -165.00 -177.43 -184.46 -185.89

SO XBADJ     EU_01    -182.74 -175.10 -162.14 -144.25 -121.98  -96.00
SO YBADJ     EU_01     -84.17  -87.28  -87.73  -86.06  -80.81  -72.31
SO YBADJ     EU_01     -61.62  -45.72  -26.50   -7.78   10.58   26.82
SO YBADJ     EU_01      38.64   45.67   56.73   66.07   73.40   78.50
SO YBADJ     EU_01      84.17   87.28   87.73   86.06   80.81   72.31
SO YBADJ     EU_01      61.62   45.72   26.50    7.78  -10.58  -26.82
SO YBADJ     EU_01     -38.64  -45.67  -56.73  -66.07  -73.40  -78.50


SO BUILDHGT  08_01       5.03    5.03    5.03    5.03    5.03    5.03
SO BUILDHGT  08_01       5.03    5.03    5.03    5.03    5.03    5.03
SO BUILDHGT  08_01       5.03    5.03    5.03    5.03    5.03    5.03
SO BUILDHGT  08_01       5.03    5.03    5.03    5.03    5.03    5.03
SO BUILDHGT  08_01       5.03    5.03    5.03    5.03    5.03    5.03
SO BUILDHGT  08_01       5.03    5.03    5.03    5.03    5.03    5.03
SO BUILDWID  08_01     186.52  194.37  196.32  193.37  188.59  179.66
SO BUILDWID  08_01     165.26  152.52  139.00  126.64  111.64   98.59
SO BUILDWID  08_01      98.28  112.60  134.32  151.96  164.99  173.00
SO BUILDWID  08_01     186.52  194.37  196.32  193.37  188.59  179.66
SO BUILDWID  08_01     165.26  152.52  139.00  126.64  111.64   98.59
SO BUILDWID  08_01      98.28  112.60  134.32  151.96  164.99  173.00
SO BUILDLEN  08_01     126.64  111.64   98.59   98.28  112.60  134.32
SO BUILDLEN  08_01     151.96  164.99  173.00  186.52  194.37  196.32
SO BUILDLEN  08_01     193.37  188.59  179.66  165.26  152.52  139.00
SO BUILDLEN  08_01     126.64  111.64   98.59   98.28  112.60  134.32
SO BUILDLEN  08_01     151.96  164.99  173.00  186.52  194.37  196.32
SO BUILDLEN  08_01     193.37  188.59  179.66  165.26  152.52  139.00
SO XBADJ     08_01     -71.10  -45.24  -22.48  -10.50  -10.63  -10.43
SO XBADJ     08_01      -9.91   -9.09   -8.00   -9.09   -9.91  -10.43
SO XBADJ     08_01     -10.63  -13.49  -17.52  -21.01  -30.54  -43.00
SO XBADJ     08_01     -55.54  -66.40  -76.11  -87.78 -101.97 -123.89
SO XBADJ     08_01    -142.05 -155.89 -165.00 -177.43 -184.46 -185.89
SO XBADJ     08_01    -182.74 -175.10 -162.14 -144.25 -121.98  -96.00
SO YBADJ     08_01     -84.17  -87.28  -87.73  -86.06  -80.81  -72.31
SO YBADJ     08_01     -61.62  -45.72  -26.50   -7.78   10.58   26.82
SO YBADJ     08_01      38.64   45.67   56.73   66.07   73.40   78.50
SO YBADJ     08_01      84.17   87.28   87.73   86.06   80.81   72.31
SO YBADJ     08_01      61.62   45.72   26.50    7.78  -10.58  -26.82
SO YBADJ     08_01     -38.64  -45.67  -56.73  -66.07  -73.40  -78.50
```

9.0 COMPLIANCE CERTIFICATION PLAN

9.1 OBJECTIVE

In order to document continuous compliance pursuant to the Clean Air Act Amendments, this section contains the facility monitoring, recordkeeping, and reporting provisions required for major stationary sources. This plan will establish compliance with all applicable state and federal rules and regulations, with the exception of non-applicable rules and regulations as listed in the permit application Section 5.0 on Regulatory Applicability. Included in this section will be compliance demonstration for facility-wide emissions, specific emission unit limits and standards, such as NSPS requirements, and other federal requirements.

This section will cover the permit requirements of Tier II Permit number P-050300 and the appropriate compliance demonstration methods. Table 9.1-1 is the compliance plan for facility-wide requirements. Table 9.1-2 is the compliance plan for specific emission unit requirements. Table 9.1-3 is the compliance plan for other federal requirements.

Nonpareil certifies that its facility in Blackfoot, Idaho will be in compliance with the identified applicable requirements of the Federal and State Clean Air Acts. Furthermore, Nonpareil will continue to comply with all applicable regulatory requirements including those to be issued based on the east boiler PTC application submitted April 14, 2008. Compliance certifications during the permit term will be submitted annually or more frequently if required by the underlying applicable requirement or by the IDEQ.

Table 9.1-1 Compliance Plan for Facility-Wide Requirements

NONPAREIL CORPORATION COMPLIANCE PLAN FOR FACILITY-WIDE REQUIREMENTS				
FACILITY-WIDE REQUIREMENT	**REQUIREMENT/CITATION**	**MONITORING AND RECORDKEEPING**	**STATUS**	**SCHEDULE FOR COMPLIANCE**
Fugitive Particulate Matter	Facility-wide requirement states that all reasonable precautions shall be taken to prevent PM from becoming airborne in accordance with IDAPA 58.01.01.650-651.	Facility-wide requirement states that the permittee is required to monitor and maintain records of the frequency and the methods used by the facility to reasonably control fugitive particulate emissions. Facility-wide requirement requires that the permittee maintain a record of all fugitive dust complaints received.	Nonpareil is currently in compliance with all applicable fugitive particulate matter requirements.	Nonpareil has demonstrated compliance with the facility-wide requirement and will be in compliance at the time the Tier I is issued. Nonpareil will then remain in compliance the remainder of the Tier I OP term.
Control of Odors	Facility-wide requirement and IDAPA 58.01.01.776 both state that: "No person shall allow, suffer, cause or permit the emission of odorous gases, liquids or solids to the atmosphere in such quantities as to cause air pollution." This condition is currently considered federally enforceable until such time it is removed from the SIP.	Facility-wide requirement requires the permittee to maintain records of all odor complaints received. If the complaint has merit, the permittee is required to take appropriate corrective action as expeditiously as practicable.	Nonpareil is currently in compliance with all applicable odor requirements.	Nonpareil has demonstrated compliance with the facility-wide requirement and will be in compliance at the time the Tier I is issued. Nonpareil will then remain in compliance the remainder of the Tier I OP term.

NONPAREIL CORPORATION COMPLIANCE PLAN FOR FACILITY-WIDE REQUIREMENTS				
FACILITY-WIDE REQUIREMENT	**REQUIREMENT/CITATION**	**MONITORING AND RECORDKEEPING**	**STATUS**	**SCHEDULE FOR COMPLIANCE**
Visible Emissions	IDAPA 58.01.01.625 and Facility-wide requirement state that "(No) person shall discharge any air pollutant to the atmosphere from any point of emission for a period or periods aggregating more than three minutes in any 60-minute period which is greater than twenty percent (20%) opacity as determined . . ." by IDAPA 58.01.01.625.	Nonpareil will conduct routine visible emissions inspections of the facility to ensure reasonable compliance with the visible emissions rule. Nonpareil will inspect potential sources of visible emissions during daylight hours and under normal operating conditions. If opacity is determined to be greater than 20% for a period or periods aggregating more than three minutes in any 60-minute period, Nonpareil will take corrective action and report the exceedance in its annual compliance certification and in accordance with the excess emissions rules in IDAPA 58.01.01.130-136.	Nonpareil currently has not conducted a Method 9 and 22. However, a Method 9 and 22 will be completed within 180 days after the Tier I OP is issued.	Nonpareil will conduct a Method 9 and 22 within 180 days after the Tier I OP is issued (40 CFR 60.8). Nonpareil will then remain in compliance with IDAPA 58.01.01.625 the remainder of the Tier I OP term.

NONPAREIL CORPORATION COMPLIANCE PLAN FOR FACILITY-WIDE REQUIREMENTS				
FACILITY-WIDE REQUIREMENT	**REQUIREMENT/CITATION**	**MONITORING AND RECORDKEEPING**	**STATUS**	**SCHEDULE FOR COMPLIANCE**
Excess Emissions	Facility-wide requirement requires that the permittee comply with the requirements of IDAPA 58.01.01.130-136 for startup, shutdown, scheduled maintenance, safety measures, upset, and breakdowns.	Failure to prepare or file procedures pursuant to sections 133.02 and 134.04 is not a violation of the *Rules* in and of itself, as stated in subsections 133.03.a and 134.06.b. Therefore, since the permittee has the option to follow the procedures in subsections 133.02, 133.03, 134.04, and 134.05; the subsections are not considered applicable requirements for the purpose of this permit and are not included as such. See Section 7.0 in this application.	Nonpareil is currently in compliance with all applicable excess emission requirements.	Nonpareil has demonstrated compliance with the facility-wide requirement and will be in compliance at the time the Tier I is issued. Nonpareil will then remain in compliance the remainder of the Tier I OP term.
Open Burning	Facility-wide requirement. IDAPA 58.01.01.600-616	All open burning will be done in accordance with IDAPA 58.01.01.600-616.	Nonpareil is currently in compliance with all applicable open burning requirements.	Nonpareil has demonstrated compliance with the facility-wide requirement and will be in compliance at the time the Tier I is issued. Nonpareil will then remain in compliance the remainder of the Tier I OP term.

NONPAREIL CORPORATION COMPLIANCE PLAN FOR FACILITY-WIDE REQUIREMENTS				
FACILITY-WIDE REQUIREMENT	**REQUIREMENT/CITATION**	**MONITORING AND RECORDKEEPING**	**STATUS**	**SCHEDULE FOR COMPLIANCE**
Fuel Burning Equipment	Facility-wide requirement IDAPA 58.01.01.676-677	The permittee shall not discharge PM to the atmosphere from any fuel-burning equipment in excess of 0.015 gr/dscf of effluent gas corrected to 3% oxygen by volume for gas or 0.05 gr/dscf of effluent gas corrected to 3% oxygen by volume for liquid fuels in accordance with IDAPA 58.01.01676-677.	Nonpareil is currently in compliance with all applicable grainloading requirements as demonstrated in Section 6.3 of this application.	Nonpareil has demonstrated compliance with the facility-wide requirement and will be in compliance at the time the Tier I is issued. Nonpareil will then remain in compliance the remainder of the Tier I OP term.
Sulfur Content	Facility-wide requirement. IDAPA 58.01.01.727	No person shall sell, distribute, use, or make available for use any distillate fuel oil containing more than the following percentages of sulfur: ASTM Grade 1 fuel oil – 0.3% by weight or ASTM Grade 2 fuel oil – 0.5% by weight.	Nonpareil will burn distillate fuel oil with < 0.5% sulfur. Nonpareil is currently in compliance with all applicable sulfur requirements.	Nonpareil has demonstrated compliance with the facility-wide requirement and will be in compliance at the time the Tier I is issued. Nonpareil will then remain in compliance the remainder of the Tier I OP term.
Sulfur Content	Facility-wide requirement. IDAPA 58.01.01.728	No person shall sell, distribute, use, or make available for use any residual fuel oil containing more than 1.75% sulfur by weight.	Nonpareil will burn residual fuel oil with < 1.55% sulfur. Nonpareil is currently in compliance with all applicable sulfur requirements.	Nonpareil has demonstrated compliance with the facility-wide requirement and will be in compliance at the time the Tier I is issued. Nonpareil will then remain in compliance the remainder of the Tier I OP term.

Table 9.1-2 Compliance Plan for Specific Emission Units

NONPAREIL CORPORATION COMPLIANCE PLAN FOR SPECIFIC EMISSION UNITS				
AFFECTED EMISSION UNIT	**APPLICABLE REQUIREMENTS**	**COMPLIANCE DEMONSTRATION METHOD**	**STATUS**	**SCHEDULE FOR COMPLIANCE**
East and West Processing Boilers	Combined Boilers Emission limits Tier II P-050300: SOx – 247.88 tpy PM-10 – 20.6 tpy and 5.4 lb/hr Combined Boilers Emission limits after April 14, 2008 PTC: SOx – 248.02 tpy PM-10 – 21.01 tpy and 5.52 lb/hr	Emission limits will be satisfied in accordance with IDAPA 58.01.01.322.01.	Nonpareil is currently in compliance with all applicable emission limit requirements.	Nonpareil has demonstrated compliance with the emission limit requirements and will be in compliance at the time the Tier I is issued.
West Boiler	Throughput Limits: Residual Oil –270 gal/hr and 2,011,500 gal/yr IDAPA 58.01.01.322.01	Measure and document hourly and daily fuel usage.	Nonpareil will comply with the fuel oil throughput standards when fuel oil is combusted in the boiler.	Nonpareil has demonstrated compliance with the throughput limit and will be in compliance at the time the Tier I is issued and will remain in compliance the remainder of the Tier I OP term.
	Grain loading: Corrected to 3 percent oxygen IDAPA 58.01.01.676	See grain loading calculations in Section 6.0 in this application.	Compliance is demonstrated.	Nonpareil has demonstrated compliance with the grain loading standards and will be in compliance at the time the Tier I is issued and will remain in compliance the remainder of the Tier I OP term.

NONPAREIL CORPORATION COMPLIANCE PLAN FOR SPECIFIC EMISSION UNITS				
AFFECTED EMISSION UNIT	**APPLICABLE REQUIREMENTS**	**COMPLIANCE DEMONSTRATION METHOD**	**STATUS**	**SCHEDULE FOR COMPLIANCE**
East Boiler	40 CFR 60.40c Subpart Dc. Small Industrial-Commercial-Institutional Steam Generating Units 40 CFR 60.8 40 CFR 60.7 NSPS reporting requirements shall be submitted to IDEQ and the EPA.	Sulfur Dioxide Standard 60.42c(d): 40 CFR 60.44c(h) 40 CFR 60.48c	Nonpareil will comply with the sulfur dioxide standards of 60.42c(d) by only combusting fuel oil with a sulfur content less than 0.5 weight percent. Nonpareil will demonstrate compliance for sulfur dioxide based on fuel supplier certification. Nonpareil will follow the procedure outlined in § 60.48c(f)	Nonpareil will demonstrate compliance with 40 CFR 60.42c Subpart Dc for sulfur dioxide standards and will be in compliance at the time the Tier I is issued.
		Reporting and Recordkeeping Requirements (60.48c)	Nonpareil will comply with the applicable reporting and recordkeeping requirements outlined in this subpart.	Nonpareil will demonstrate compliance with 40 CFR 60.48c Subpart Dc for reporting and recordkeeping and will be in compliance at the time the Tier I is issued.
	Throughput Limits: Distillate Oil – 340 gal/hr and 2,533,000 gal/yr IDAPA 58.01.01.322.01	Measure and document hourly and daily fuel usage.	Nonpareil will comply with the fuel oil throughput standards when fuel oil is combusted in the boiler.	Nonpareil has demonstrated compliance with the throughput limit and will be in compliance at the time the Tier I is issued and will remain in compliance the remainder of the Tier I OP term.

NONPAREIL CORPORATION COMPLIANCE PLAN FOR SPECIFIC EMISSION UNITS				
AFFECTED EMISSION UNIT	**APPLICABLE REQUIREMENTS**	**COMPLIANCE DEMONSTRATION METHOD**	**STATUS**	**SCHEDULE FOR COMPLIANCE**
	Grain loading: Corrected to 3 percent oxygen IDAPA 58.01.01.676	See grain loading calculations in Section 6.0 in this application.	Compliance is demonstrated.	Nonpareil has demonstrated compliance with the grain loading standards and will be in compliance at the time the Tier I is issued and will remain in compliance the remainder of the Tier I OP term.
Dryers	Hours of Operation Limits: 8,760 hr/yr IDAPA 58.01.01.322.01	No compliance demonstration needed.	Compliance is demonstrated.	Nonpareil has demonstrated compliance with the hours of operation limit and will be in compliance at the time the Tier I is issued and will remain in compliance the remainder of the Tier I OP term.
	Process Weight: IDAPA 58.01.01.701 $E = 0.045(PW)^{0.60}$, for PW < 9,250 lb/hr $E = 1.10(PW)^{0.25}$, for PW ≥9,250 lb/hr	See process weight calculations in Section 6.0 of this application.	Compliance is demonstrated.	Nonpareil has demonstrated compliance with the process weight limit and will be in compliance at the time the Tier I is issued and will remain in compliance the remainder of the Tier I OP term.
	Grain loading: Corrected to 3 percent oxygen IDAPA 58.01.01.676	See grain loading calculations in Section 6.0 in this application.	Compliance is demonstrated.	Nonpareil has demonstrated compliance with the grain loading standards and will be in compliance at the time the Tier I is issued and will remain in compliance the remainder of the Tier I OP term.

NONPAREIL CORPORATION COMPLIANCE PLAN FOR SPECIFIC EMISSION UNITS				
AFFECTED EMISSION UNIT	**APPLICABLE REQUIREMENTS**	**COMPLIANCE DEMONSTRATION METHOD**	**STATUS**	**SCHEDULE FOR COMPLIANCE**
	Throughput Limits: Starch dryer – 14 ton/day 5,110 ton/yr Scratch-mash dryer – 22 ton/day 8,030 ton/yr Dehydration dryer No.1-3 Stages A and B&C- 12 ton/day 4,380 ton/yr Dehydration dryer No.4 Stages A,B,C – 9 ton/day 3,285 ton/yr Dehydration dryer No.5 Stages A,B,C – 14.4 ton/day 5,256 ton/yr Dehydration bin dryer-12 ton/day 4,380 ton/yr Dehydration research dryer- 1.5 ton/day 548 ton/yr IDAPA 58.01.01.405.01	Measure and document on a dry basis the daily and annual dryer throughput.	Compliance is demonstrated.	Nonpareil has demonstrated compliance with the throughput limit and will be in compliance at the time the Tier I is issued and will remain in compliance the remainder of the Tier I OP term.

NONPAREIL CORPORATION COMPLIANCE PLAN FOR SPECIFIC EMISSION UNITS				
AFFECTED EMISSION UNIT	**APPLICABLE REQUIREMENTS**	**COMPLIANCE DEMONSTRATION METHOD**	**STATUS**	**SCHEDULE FOR COMPLIANCE**
	PM-10 Emission Limits: Starch dryer – 0.37 lb/hr 1.6 ton/yr Scratch-mash dryer – 22 lb/hr 8,030 ton/yr Dehydration dryer No.1-3 Stages A – 1.47 lb/hr 6.4 ton/yr Stages B&C – 0.65 lb/hr 2.8 ton/yr Dehydration dryer No.4 Stage A– 1.10 lb/hr 4.8 ton/yr Stages B&C each – 0.47 lb/hr 2.1 ton/yr Dehydration dryer No.5 Stage A– 1.78 lb/hr 7.8 ton/yr Stages B&C each – 0.77 lb/hr 3.4 ton/yr Dehydration bin dryer- 0.63 lb/hr 2.8 ton/yr Dehydration research dryer- 0.182 lb/hr 0.8 ton/yr IDAPA 58.01.01.405.01	Conduct performance tests using EPA Method 5 and Method 202 for the following stacks: – Dehydration air dryer No. 5A stage – Starch dryer – Scratch mash dryers	Performance tests were completed on the dates listed below and each test demonstrated compliance with PM-10 emission limits. – November 6, 2007: Dehydration air dryer No. 5A stage – December 20, 2007: Scratch mash dryer – Nonpareil notified DEQ that the starch dryer was abandoned and therefore no testing was conducted.	Nonpareil has demonstrated compliance with emission limits through source tests. Nonpareil will be in compliance at the time the Tier I is issued and will remain in compliance the remainder of the Tier I OP term.

NONPAREIL CORPORATION COMPLIANCE PLAN FOR SPECIFIC EMISSION UNITS				
AFFECTED EMISSION UNIT	**APPLICABLE REQUIREMENTS**	**COMPLIANCE DEMONSTRATION METHOD**	**STATUS**	**SCHEDULE FOR COMPLIANCE**
Material transfer operations, Flakers, and Peelers	Hours of Operation Limits: 8,760 hr/yr IDAPA 58.01.01.322.01	No compliance demonstration needed.	Compliance is demonstrated.	Nonpareil has demonstrated compliance with the hours of operation limit and will be in compliance at the time the Tier I is issued and will remain in compliance the remainder of the Tier I OP term.
	Process Weight: IDAPA 58.01.01.701 $E = 0.045(PW)^{0.60}$, for PW < 9,250 lb/hr $E = 1.10(PW)^{0.25}$, for PW ≥9,250 lb/hr	See process weight calculations in Section 6.0 of this application.	Compliance is demonstrated.	Nonpareil has demonstrated compliance with the process weight limit and will be in compliance at the time the Tier I is issued and will remain in compliance the remainder of the Tier I OP term.
	Throughput Limits: Processing peeler exhaust – 60 ton/day 21,900 ton/yr Flaker Nos. 1-5 – 66 ton/day 24,090 ton/yr Dehydration steam peeler – 60 ton/day 21,900 ton/yr IDAPA 58.01.01.405.01	Measure and document on a dry basis the daily and annual process throughput.	Compliance is demonstrated.	Nonpareil has demonstrated compliance with the throughput limit and will be in compliance at the time the Tier I is issued and will remain in compliance the remainder of the Tier I OP term.

NONPAREIL CORPORATION COMPLIANCE PLAN FOR SPECIFIC EMISSION UNITS				
AFFECTED EMISSION UNIT	**APPLICABLE REQUIREMENTS**	**COMPLIANCE DEMONSTRATION METHOD**	**STATUS**	**SCHEDULE FOR COMPLIANCE**
	PM-10 Emission Limits: Processing peeler exhaust – 0.16 lb/hr 0.70 ton/yr Flaker Nos. 1-5 – 16.7 lb/hr 73.11 ton/yr Dehydration steam peeler – 0.16 lb/hr 0.70 ton/yr IDAPA 58.01.01.405.01	Conduct performance tests using EPA Method 5 and Method 202 for the following stack: – Flaker No. 5 stack	Performance tests were completed on the date listed below and the test demonstrated compliance with PM-10 emission limits. – October 9, 2007: Flaker No. 5	Nonpareil has demonstrated compliance with emission limits through source tests. Nonpareil will be in compliance at the time the Tier I is issued and will remain in compliance the remainder of the Tier I OP term.

Table 9.1-3 Compliance Plan for Other Federal Requirements

NONPAREIL CORPORATION COMPLIANCE PLAN FOR OTHER FEDERAL REQUIREMENTS				
FEDERAL REQUIREMENT	**APPLICABLE REQUIREMENTS**	**COMPLIANCE DEMONSTRATION METHOD**	**STATUS**	**SCHEDULE FOR COMPLIANCE**
Compliance Assurance Monitoring (CAM)	40 CFR 64	CAM will not apply to any of the Nonpareil equipment. A CAM applicability analysis is included with this application in section 13.	Nonpareil is currently not affected by the EPA Compliance Assurance Monitoring (CAM) standard. In the future if the facility becomes subject to this rule it will comply with the provisions in a timely manner.	Nonpareil has demonstrated that this regulation does not apply. Nonpareil will remain in compliance throughout the Tier I OP term.
Renovation/Demolition	40 CFR 61, Subpart M (Asbestos)	Nonpareil will comply with all applicable portions of 40 CFR 61, Subpart M when conducting any renovation or demolition activities at the facility.	Nonpareil will be completing renovation/ demolition associated with the installation of the new east boiler. This renovation/demolition will comply with 40 CFR 61, Subpart M (Asbestos).	Nonpareil has demonstrated compliance with the federal requirement and will be in compliance at the time the Tier I is issued. Nonpareil will then remain in compliance the remainder of the Tier I OP term.
Chemical Accident Prevention Provision	40 CFR 68	No compliance demonstration needed. Nonpareil does not meet the threshold requirements of 40 CFR 68.115.	Nonpareil does not currently possess chemicals above a threshold quantity listed in 40 CFR 68.130 at this time. In the future if the facility becomes subject to this rule it will comply with the provisions in a timely manner.	Nonpareil has demonstrated compliance with the federal requirement and will be in compliance at the time the Tier I is issued. Nonpareil will then remain in compliance the remainder of the Tier I OP term.

NONPAREIL CORPORATION COMPLIANCE PLAN FOR OTHER FEDERAL REQUIREMENTS				
FEDERAL REQUIREMENT	**APPLICABLE REQUIREMENTS**	**COMPLIANCE DEMONSTRATION METHOD**	**STATUS**	**SCHEDULE FOR COMPLIANCE**
Maximum Achievable Control Technology (MACT)	40 CFR 63	No compliance demonstration needed. No MACT standards apply.	Nonpareil is currently not affected by any subparts of CFR 63, Maximum Achievable Control Technology (MACT) standards by the EPA. In the future if the facility becomes subject to this rule it will comply with the provisions in a timely manner.	Nonpareil has demonstrated compliance with the federal requirement and will be in compliance at the time the Tier I is issued. Nonpareil will then remain in compliance the remainder of the Tier I OP term.
New Applicable Requirements	General Requirements	Not applicable	Nonpareil is not aware of any new applicable requirements that will become effective during the operating permit term. However, should new requirements become applicable during the term of the permit, then Nonpareil will comply with the new requirements and use the appropriate test methods.	Nonpareil will demonstrate compliance with future requirements. Nonpareil will then remain in compliance the remainder of the Tier I OP term.

9.2 CERTIFICATION

I certify this compliance plan and that the stationary source will comply in a timely manner with any new applicable requirements that become effective during the operating permit term.

X
Signature of Responsible Official

10.0 INSIGNIFICANT ACTIVITIES

The following activities in Table 10.0-1 have been identified as insignificant activities with no quantifiable emissions, as defined in IDAPA 58.01.01.317.

Table 10.0-1 Insignificant Emissions

Insig. Emission Point No.	Identification	Quantity	Description	Regulatory Citation
	CORPORATE OFFICE			
1	Furnace	5	Carrier Weathermaker 9200 natural gas fired furnaces. 100,000 Btu/hr	IDAPA 58.01.01.317.b.5
2	Water Heater	1	Paloma Instantaneous water heater n.g. fired. 178,000 Btu/hr	IDAPA 58.01.01.317.b.5
	IDAHO POTATO PACKERS			
3	Space Heater	8	Modine gas fired space heaters. 75,000 Btu/hr	IDAPA 58.01.01.317.b.5
4	Space Heater	4	Modine gas fired space heaters. 150,000 Btu/hr	IDAPA 58.01.01.317.b.5
5	Furnace	2	Carrier Weathermaker 9200 natural gas fired furnaces. 100,000 Btu/hr	IDAPA 58.01.01.317.b.5
6	NONPAREIL DEHYDRATED			
7	Blancher Exhaust	5	6" Type CI Exhaust fan moving 500 cfm. Blancher operates at 190 F.	IDAPA 58.01.01.317.a.9
8	Furnace	2	Carrier Weathermaker 9200 natural gas fired furnaces. 100,000 Btu/hr	IDAPA 58.01.01.317.b.5
9	Pressure Relief Valve	2	Air compressor relief valves set at 150 psig.	IDAPA 58.01.01.317.a.77
10	Pressure Relief Valve	2	North Boiler safety relief valves. Set at 240 psig	IDAPA 58.01.01.317.a.77
11	Pressure Relief Valve	2	South Boiler safety relief valves set at 240 psig.	IDAPA 58.01.01.317.a.77
12	Pressure Relief Valve	1	Steam Peeler safety relief valve set at 250 psig	IDAPA 58.01.01.317.a.77
13	Pressure Relief Valve	2	Steam Peeler surge tank safety relief valve set at 250 psig	IDAPA 58.01.01.317.a.77
14	Pressure Relief Valve	1	Bin Dryer safety relief valve set at 100 psig	IDAPA 58.01.01.317.a.77
15	Pressure Relief Valve	1	Compressed air tank safety releif valve set at 150 psig	IDAPA 58.01.01.317.a.77
16	Boiler Blow Down	1	Continuous blow down vent.	IDAPA 58.01.01.317.a.80

Insig. Emission Point No.	Identification	Quantity	Description	Regulatory Citation
17	NONPAREIL PROCESSING			
18	Pressure Relief Valve	2	East Boiler safety relief valves set at 165 & 170 psig respectively	IDAPA 58.01.01.317.a.77
19	Pressure Relief Valve	2	West Boiler safety relief valves set at 165 & 170 psig respectively	IDAPA 58.01.01.317.a.77
20	Pressure Relief Valve	4	Flakers 1-4 safety relief valves set at 165 psig	IDAPA 58.01.01.317.a.77
21	Pressure Relief Valve	1	Flaker 5 safety relief valve set at 100 psig	IDAPA 58.01.01.317.a.77
22	Pressure Relief Valve	1	Flash Tank safety relief valve set at 50psig	IDAPA 58.01.01.317.a.77
23	Space Heaters	1	Modine Knife room space heater 75,000 Btu/hr	IDAPA 58.01.01.317.b.5
24	Space Heaters	1	Modine Receiving space heater 75,000 Btu/hr	IDAPA 58.01.01.317.b.5
25	Space Heaters	1	Modine Potato Receiving space heater 75,000 btu/hr	IDAPA 58.01.01.317.b.5
26	Space Heaters	1	Modine Machine shop space heater 100,000 Btu/hr	IDAPA 58.01.01.317.b.5
27	Space Heaters	1	Modine Starch plant space heater 150,000 Btu/hr	IDAPA 58.01.01.317.b.5
28	Space Heaters	1	Modine Waste plant space heater 150,000 Btu/hr	IDAPA 58.01.01.317.b.5
29	Pressure Relief Valve	2	Flake plant air compressor safety relief valves. Set at 150 & 160 psig	IDAPA 58.01.01.317.a.77
30	Boiler Blow Down	1	Continuous blow down vent	IDAPA 58.01.01.317.a.80

11.0 ALTERNATIVE OPERATING SCENARIO/TRADING SCENARIOS/PERMIT SHIELD

11.1 ALTERNATIVE OPERATING SCENARIO/TRADING SCENARIOS

Nonpareil does not propose alternative operating scenarios or trading scenarios. It should be noted that operation of the East and West Processing Boilers using natural gas, diesel, or residual fuel is considered normal operation.

11.2 PERMIT SHIELD

Nonpareil requests application of the permit shield to the operating permit issued from this application. Compliance with the conditions of the permit shall deem the facility compliant with all applicable requirements as of the date of permit issuance.

Nonpareil also requests that the applicability determinations of this document be made part of the operating permit. Nonpareil understands that incorporation of the applicability determinations is necessary to ensure full protection under the permit shield.

12.0 DEMONSTRATION OF COMPLIANCE WITH TOXIC STANDARDS

Demonstration of compliance with toxic standards was included in the Tier II Permit P-050300 application submitted January 3, 2005 and updated March 2006.

The only change in emissions that have occurred since the Tier II Permit P-050300 was issued is the proposed replacement east processing boiler. An ambient air impact analysis was completed and included in the April 14, 2008 PTC application for the proposed replacement of the east processing boiler. The ambient impact analysis completed for the April 14, 2008 PTC application showed that the proposed replacement of the east processing boiler would demonstrate compliance with toxic standards.

The appropriate modeling analyses have been completed and demonstrate compliance with toxic standards therefore, no new modeling is necessary. The demonstration of compliance with toxic standards that was submitted in the March 2006 modeling analysis is included below in this section. A copy of the modeling analysis conducted for the new replacement east boiler is included in section 8.0 of this permit application. Sections 1.9 of the April 2008 Air Quality Modeling Report discusses the evaluation of compliance with impact standards.

Section 7.0 Demonstration of Compliance with Toxic Pollutant Standards
Nonpareil Corporation, Blackfoot, Idaho
March 2006

7.0 DEMONSTRATION OF COMPLIANCE WITH TOXIC AIR POLLUTANT STANDARDS

This section includes all toxic air pollutant calculations.

7.1 TAPs

Emissions of all toxic air pollutants were compared to their specific threshold emissions limit (EL), as defined in the *Rules for the Control of Air Pollution in Idaho* (IDAPA), to determine if modeling was required. For TAPs that exceeded their EL, modeling was performed and the maximum impact was compared to the Acceptable Ambient Concentration (AAC) or Acceptable Ambient Concentration for Carcinogens (AACC), as defined in IDAPA Sections 585 and 586, respectively. Table 7-1 shows TAPS that exceed their respective EL and therefore require modeling.

Only one non-carcinogen, vanadium, exceeded its IDAPA Section 585 EL. Carcinogens which exceeded their IDAPA Section 586 ELs are arsenic, cadmium, chromium VI, formaldehyde, nickel, and total polycyclic aromatic hydrocarbons (PAHs).

Since the IDAPA Section 586 AACCs represents an annual standard, modeling was conducted for the annual averaging time for the six carcinogens. For the non-carcinogen vanadium, modeling was performed to estimate maximum 24-hour average impacts, consistent with the averaging period of the IDAPA Section 585 AAC impact limit. For all pollutants, the maximum hourly emission rate was assumed to be emitted continuously (8,760 hours annually) as a simplifying measure. Receptors included the high density receptor grid described in the criteria pollutant modeling (Section 8 of this permit application). All maximum model predicted impacts occurred in the 25-meter grid spacing or just barely into the 50-meter grid spacing. Therefore, the receptor grid exceeded the 100-meter grid density required by the *IDEQ Modeling Guidelines* in the vicinity of the maximum. See Section 8.0 for the complete ambient air quality impact analysis.

Table 7-2 shows the modeled ambient concentrations that are compared to the AAC or AACC; compliance is demonstrated with the AAC and AACC for all TAPs. In order to meet the AACC for nickel, an emission factor of 0.074 lb/ 1,000 gal was used for modeling purposes. Nonpareil proposes to limit the nickel concentration in #6 residual fuel oil to no more than 0.074 lb/ 1,000 gal as an enforceable permit condition. This is a 12.4% reduction of the AP-42 nickel emission factor of 0.0845 lb/1,000 gal used in TAP emissions calculations.

Table 7-1 TAPs Compared to their ELs

NON-CARCINOGENS				
Pollutant	**Max. Hourly Emissions**	**Screening Level**	**Modeling?**	**Emissions**
	(lb/hr)	**(lb/hr)**	**(Y/N)**	**(T/yr)**
Antimony	1.42E-03	3.3E-02	No	5.3E-03
Barium	1.37E-03	3.3E-02	No	5.6E-03
Chromium	2.14E-04	3.3E-02	No	1.8E-03
Cobalt	1.64E-03	3.3E-03	No	6.1E-03
Copper	6.05E-04	6.7E-02	No	2.4E-03
Ethylbenzene	1.72E-05	2.9E+01	No	6.4E-05
Fluoride	1.01E-02	1.67E-01	No	3.8E-02
Hexane	2.75E-01	1.2E+01	No	1.3E+00
Manganese	8.68E-04	3.33E-01	No	3.3E-03
Mercury	7.02E-05	3.E-03	No	2.9E-04
Molybdenum	3.81E-04	6.67E-01	No	1.6E-03
Naphthalene	3.98E-04	3.33E+00	No	1.6E-03
Pentane	3.97E-01	1.18E+02	No	1.8E+00
Phosphorous	2.55E-03	7.E-03	No	9.5E-03
Selenium	1.88E-04	1.3E-02	No	7.0E-04
1,1,1 - Trichlorethane (Methyl Chloroform)	6.37E-05	1.3E+02	No	2.4E-04
Toluene	2.19E-03	2.5E+01	No	8.6E-03
o-Xylene	2.94E-05	2.9E+01	No	1.1E-04
Vanadium	8.94E-03	3.0E-03	Yes	3.4E-02
Zinc	1.23E-02	6.67E-01	No	4.9E-02

CARCINOGENS				
Pollutant	**Max. Hourly Emissions**	**Screening Level**	**Modeling?**	**Emissions**
	(lb/hr)	**(lb/hr)**	**(Y/N)**	**(Tons/yr)**
Arsenic	3.87E-04	1.5E-06	Yes	1.47E-03
Benzene	3.79E-04	8.0E-04	No	1.68E-03
Beryllium	9.34E-06	2.8E-05	No	3.63E-05
Cadmium	2.76E-04	3.7E-06	Yes	1.17E-03
Chromium VI	6.70E-05	5.6E-07	Yes	2.49E-04
Formaldehyde	2.04E-02	5.1E-04	Yes	8.53E-02
Nickel	2.31E-02	2.7E-05	Yes	8.64E-02
Benzo(a)pyrene	1.83E-07	2.0E-06	No	8.34E-07
Benz(a)anthracene	1.36E-06	NA	NA	5.28E-06
Benzo(k)fluoranthene	6.75E-07	NA	NA	2.00E-06
Chrysene	9.18E-07	NA	NA	3.65E-06
Dibenzo(a,h)anthracene	6.34E-07	NA	NA	2.51E-06
Indeno(1,2,3-cd)pyrene	8.53E-07	NA	NA	3.40E-06
Total PAHs	4.62E-06	2.0E-06	Yes	1.77E-05

Table 7-2 TAPs Compared to the AAC or AACC (for Those Exceeding the EL)

Pollutant	Modeled 24-Hour or Annual ($\mu g/m^3$)	AAC or AACC ($\mu g/m^3$)	% AAC or AACC	Year of model predicted max. impact	Location of model predicted max. impact
Arsenic	8.0E-05	2.30E-04	34.8%	1990	NE bndry SW prop, N of bldg D1
Cadmium	3.6E-04	5.60E-04	64.3%	1990	NE bndry SW prop, N of bldg D1
Chromium VI	1.0E-05	8.30E-05	12.1%	1990	90m NE of NE prop
Formaldehyde	2.4E-02	7.70E-02	31.7%	1990	NE bndry SW prop, N of bldg D1
Nickel	4.19E-03	4.20E-03	99.8%	1991	300m NE of NE prop
Total PAHs	<1.0E-05	1.40E-02	<1%	1990	Non-detect
Vanadium	1.3E-02	2.5	<1%	1990	185m N of NE prop

7.2 HAZARDOUS AIR POLLUTANTS (HAPS)

Table 7-3 below summarizes HAP emissions from Nonpareil. As shown in the table, Nonpareil is not a major source for HAPs.

Table 7-3 HAP Emissions

HAPs Inventory	
Pollutant	**Emissions (Tons/yr)**
Arsenic	1.47E-03
Benzene	1.68E-03
Beryllium	3.63E-05
Cadmium	1.17E-03
Ethylbenzene	6.4E-05
Formaldehyde	8.53E-02
Chromium	1.82E-03
Lead	2.12E-03
Mercury	2.9E-04
1,1,1 – Trichlorethane (Methyl Chloroform)	2.4E-04
Naphthalene	1.6E-03
Nickel	8.64E-02
Selenium	1.1E-04
Toluene	7.0E-04
Xylene	8.6E-03
POM	3.51E-04
Dichlorobenzene	1.83E-04
Hexane	1.25E+00
TOTAL	**1.44E+00**

13.0 COMPLIANCE ASSURANCE MONITORING (CAM) APPLICABILITY ANALYSIS

Nonpareil is not subject to the requirements of 40 CFR Part 64, Compliance Assurance Monitoring (CAM) because no emission units utilize a control device to achieve compliance with emission limitations or standards. The following is an applicability analysis which provides further justification for why CAM does not apply to Nonpareil.

(1) 40 CFR 64.2(a)(1)- The unit is subject to an emission limitation or standard for the applicable regulated air pollutant.

The following emission units are subject to emission limitations as outlined in Tier II permit P-050300 Section 6.0.

Table 6.1 BOILER EMISSION LIMITS

Source Description	PM_{10}		SO_2	Nickel
	lb/hr	T/yr	T/yr	lb/yr
Processing east and boilers, combined emissions from both boilers	5.4	20.6	247.98	175

Table 6.2 PM_{10} EMISSION LIMITS

Source Description	PM_{10}	
	lb/hr	T/yr
Starch dryer	0.37	1.6
Scratch-mash dryers	2.56	11.2
Scratch-mash air makeup	0.038	0.16
Reblend room air makeup	0.008	0.03
Building No. 3 air makeup	0.023	0.10
Building No. 4 air makeup	0.075	0.33
Processing peeler exhaust	0.16	0.7
Flaker Nos. 1 – 5	16.7	73.11
Dehydration north boiler	0.075	0.34
Dehydration south boiler	0.026	0.27
Dehydration air dryer No. 1 A stage	1.47	6.4
Dehydration air dryer No. 1 B & C stage	0.65	2.8
Dehydration air dryer No. 2 A stage	1.47	6.4
Dehydration air dryer No. 2 B & C stage	0.65	2.8
Dehydration air dryer No. 3 A stage	1.47	6.4
Dehydration air dryer No. 3 B & C stage	0.65	2.8
Dehydration air dryer No. 4 A stage	1.10	4.8
Dehydration air dryer No. 4 B stage	0.47	2.1
Dehydration air dryer No. 4 C stage	0.47	2.1
Dehydration air dryer No. 5 A stage	1.78	7.8
Dehydration air dryer No. 5 B stage	0.77	3.4
Dehydration air dryer No. 5 C stage	0.77	3.4
Dehydration bin dryer	0.63	2.8
Wet area air makeup	0.026	0.11
South dryer room air makeup	0.038	0.16
South dryer room roof air makeup	0.038	0.16
Inspection room roof air makeup	0.026	0.11
Dehydration research dryer	0.182	0.8
Dehydration steam peeler	0.16	0.7
Total	**32.9**	**143.9**

(2) 40 CFR 64.2(a)(2)- The unit uses a control device to achieve compliance with any such emission limitation or standard.

None of the emission units subject to emission limitations or standards utilize control equipment to achieve compliance with the emission limitations.

The only control equipment utilized at the facility are the baghouses used in the material transfer operations shown in Table 13.0-1 below:

Table 13.0-1 Material Transfer Baghouses

Grinding circuit No. 1 material transfer	Grinding circuit No. 1 baghouse
Starch plant material transfer	Starch plant baghouse
Grinding circuit No. 2 material transfer	Grinding circuit No. 2 baghouse
Flake material transfer	Flake baghouse
Packaging material transfer	Packaging baghouse No. 1 Packaging baghouse No. 2
Crush- room material transfer	Crush-room baghouse No. 1
Crush- room material transfer	Crush- room baghouse No. 2

Nonpareil believes that the material transfer baghouses should be considered inherent process equipment rather than control devices. In accordance with guidance published by EPA, the following list of questions is considered in determining whether the baghouses are considered inherent process equipment.

1. Is the primary purpose of the equipment to control air pollution?

2. Where the equipment is recovering product, how does the cost savings from the product recovery compare to the cost of the equipment?

3. Would the equipment be installed if no air quality regulations are in place?

Below are Nonpareil's responses to the questions:

1. The primary purpose of the baghouses is to help pneumatically transfer the potato material from one location to another in a clean, quick and efficient manner. The baghouse units move dehydrated products to bagging and/or tote filing stations, or to other necessary processes within the facility. The baghouse units are also used to recover potato dust from dry processes and recycle the material.

2. Nonpareil has not quantified the value of product recovered by the baghouses.

3. The baghouses were installed along with each of the process lines they serve as noted in Table 13.0-1 below. As seen in Table 13.0-1 all the baghouses were installed prior to Nonpareil receiving their first air permit in 2002. Baghouses used in pneumatic conveying and dust collection constitute best practical technology for conveying and recovering dehydrated potatoes. These systems are highly efficient and have very little loss. These types of systems are also very clean and in general are completely closed off

from human contact. We have used this type of equipment since it first became practical to use in the early 1960's. If there were no air quality regulations in place, baghouses would still be used. They are absolutely necessary to the process of conveying and recovering of dehydrated potatoes.

Table 13.0-2 Material Transfer Baghouses

Equipment	Installation Date
Grinding circuit No. 1 baghouse	1988
Starch plant baghouse	1961
Grinding circuit No. 2 baghouse	1997
Flake baghouse	1970
Packaging baghouse 1	1988
Packaging baghouse 2	1988
Crush-room baghouse No. 1	1989
Crush- room baghouse No. 2	1989